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Department of
Mines and Energy
Information Series No. 10

Petroleum Wells, and Drillholes with Petroleum Significance

Onshore Nova Scotia

compiled by

P. McMahon, G. Short, and D. Walker

Honourable Joel R. Matheson, Q.C., Minister

John J. Laffin, P. Eng., FEIC, Deputy Minister

HALIFAX, NOVA SCOTIA

1986

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INTRODUCTION

During 1984-85 the Petroleum Resources Section of the Nova Scotia Department of Mines and Energy conducted a project which resulted in this report. The purpose of the project was to compile all available information relating to petroleum wells and other boreholes with petroleum significance, which were drilled onshore Nova Scotia. Prior to this project, such data were disseminated through many reports and files. The primary objective was to present the information in a more complete and organized manner and to make the information more accessible to those involved in petroleum exploration within the Province of Nova Scotia and to the public in general.

The report is divided into two main sections. The first is a list of wells drilled onshore Nova Scotia for petroleum exploration. These wells, which were drilled for oil, gas and petroleum-related geological information, have been designated as P wells and are numbered chronologically in order of spud date. Based on the existing records, P-1 is the first petroleum well drilled onshore Nova Scotia and P-97 is the most recent.

The second section is a chronologically arranged list of boreholes which were drilled for purposes other than petroleum exploration (i.e. industrial and metallic minerals, etc.) and which had a petroleum show of some significance. These have been labelled as M holes (M-1 to M-68). Sixty-eight of these have been identified to date, and it is expected that more will be identified in the future. Based on conversations with drillers and geologists, many of the hydrocarbon shows encountered were not recorded. Of particular note in this regard are the many shows encountered while drilling through the lower Windsor Group carbonates.

For the purposes of this report, a significant petroleum show includes references to the following: oil, gas, petroliferous material, methane, bitumen (also bituminous, depending on usage of term), pyrobitumen, dead or live oils, hydrocarbon odours or staining, albertite, asphaltic material or tar. These terms are defined in the glossary found in Appendix 1 of this report.

The information for this report was obtained from several sources, primarily Progress Reports, Summary Reports and Annual Reports of the Geological Survey of Canada (GSC) and Assessment Files, Annual Reports and miscellaneous files of the Nova Scotia Department of Mines and Energy.

The information provided is a summary designed to highlight the more pertinent facts. A file for each well has been compiled and contains additional information including copies of available lithologic logs, cross-sections, and maps. These files are located in the Petroleum Resources Section of the Nova Scotia Department of Mines and Energy and are organized according to the National Topographic System (NTS) of area designation. Figure 1 shows the NTS map divisions for Nova Scotia.

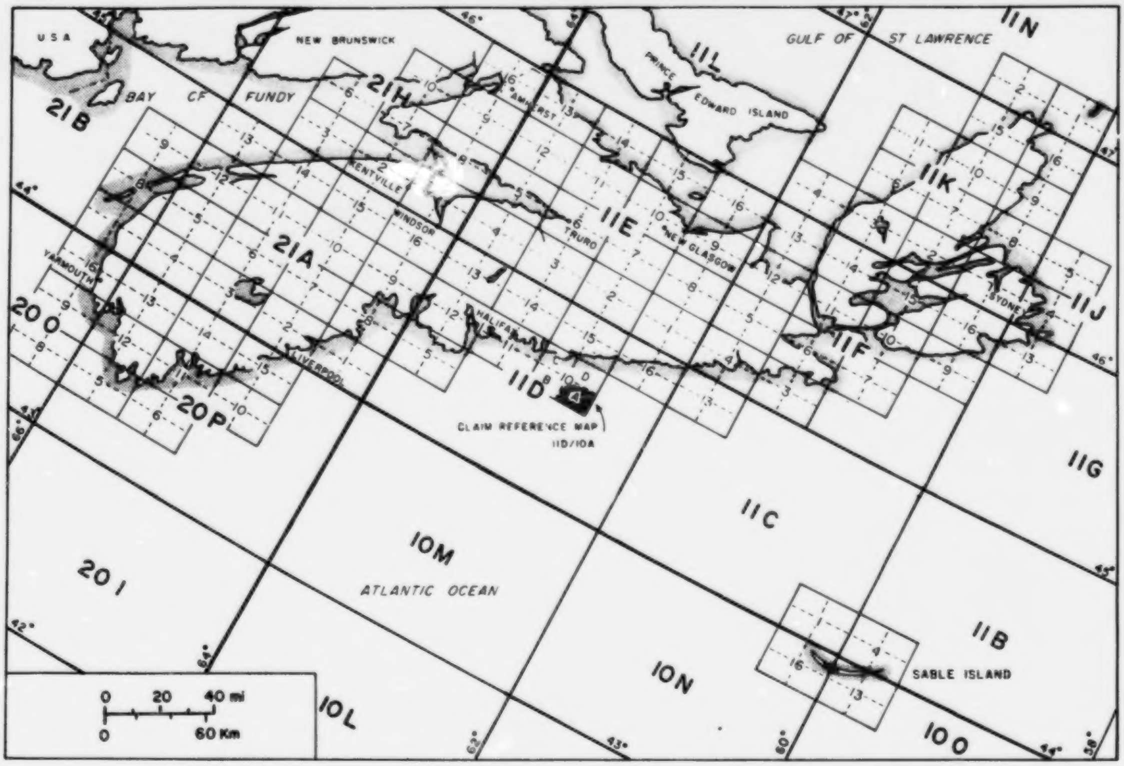
U.S.A.
NEW BRUNSWICK
GULF OF ST LAWRENCE
BAY OF FUNDY
PRINCE EDWARD ISLAND
AMHERST
KENTVILLE
WINDSOR
TRURO
NEW GLASGOW
YARMOUTH
LIVERPOOL
HALIFAX
SYDNEY
21B
21H
21A
20O
20P
20I
11L
11N
11K
11E
11F
11J
11D
11G
11C
11B
10M
10L
10N
10O
ATLANTIC OCEAN
SABLE ISLAND
CLAIM REFERENCE MAP
11D/10A
0 20 40 mi
0 60 Km
42°
43°
44°
45°
46°
47°
58°
60°
62°
64°
66°

Figure 1. NTS map divisions for Nova Scotia.

HISTORICAL SUMMARY

The early drilling in Nova Scotia (first recorded well drilled in 1869) reflects the excitement and interest in petroleum exploration shortly after the first producing oil well on the continent was completed at Oil Springs, Ontario, in 1858 (Petroleum Resources Communication Foundation, 1984; Oilweek, 1985). This initial period of exploration in Nova Scotia concentrated primarily in the Lake Ainslie, Inverness County, area where surface seepages had been noted (Figs. 2, 3, and 4).

Extensive exploration in New Brunswick and Nova Scotia at the turn of the century resulted in the 1909 oil and gas discovery at Stoney Creek in New Brunswick. This discovery stimulated further drilling activity in Nova Scotia.

During the period 1914 to 1926, there was no petroleum drilling. In June 1926, Eastern Gulf Oil embarked on an ambitious diamond drilling program in Inverness County. This surge of activity stemmed from the positive field reports of Mr. William P. DeLaat in 1924 and of Dr. Kirtley F. Mather and Dr. Parker D. Trask in 1925 (Eastern Gulf Oil Company, 1929). Imperial Oil also initiated a drilling program in the Nappan area of Cumberland County. These projects were an attempt to find a producing reservoir within the Horton Group, similar to the producing Albert Formation of Stoney Creek, New Brunswick.

The Depression of the 1930's marked a decrease in exploration activities, with only one well being drilled between 1931 and 1944.

On March 28, 1942, An Act to Regulate the Search for Petroleum and Natural Gas was enacted. Prior to this petroleum resources were administered and managed under the Mines Act, along with all other mineral resources of the Province.

Due to the loss of the East Indian Oil Fields to the Japanese during World War II, petroleum interests were revived in North America including Nova Scotia (Nova Scotia Department of Mines, 1946). The need for an indigenous supply of oil continued after the War. A corresponding increase in drilling activity was seen, beginning in 1944, which carried through to 1949.

Only one well was spudded between 1949 and 1958, a period when less interest was being shown in Canadian frontier exploration.

In 1956, the Petroleum and Natural Gas Act was passed to specifically guide the exploration and production activities for petroleum in regards to onshore Nova Scotia.

Drilling activities increased in 1958 and continued into the early sixties, primarily as a result of the exploration work conducted by Imperial Oil Limited in the western Cape Breton Island area. From the early nineteen sixties to the mid-seventies activities slowed.

Chevron Standard Limited's oil discovery at Malagawatch, Inverness County, Cape Breton Island, discovered while conducting a base metals

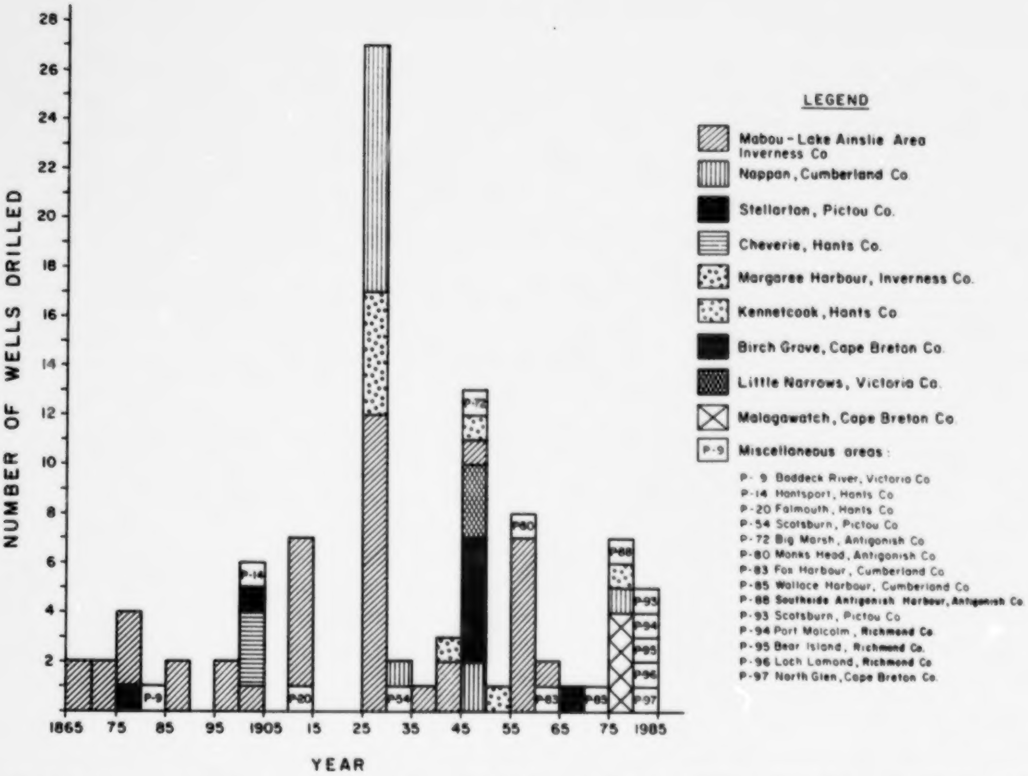

Figure 2. Petroleum wells drilled onshore Nova Scotia; number of wells, date, and area.

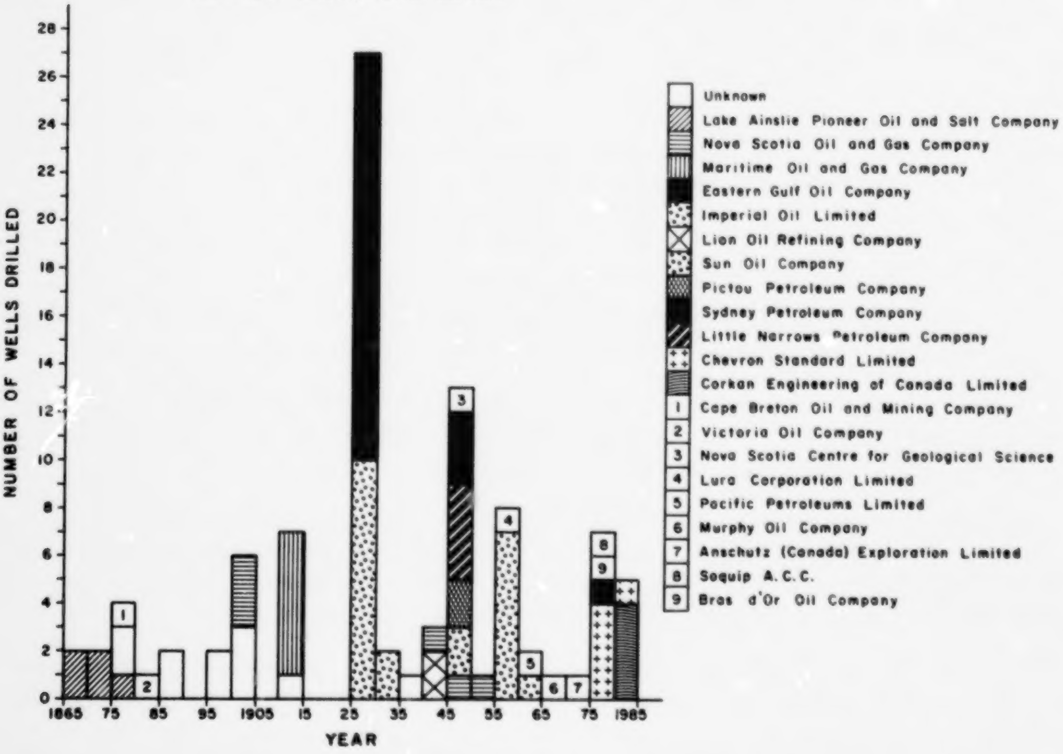

Figure 3. Petroleum wells drilled onshore Nova Scotia; number of wells, date, and company.

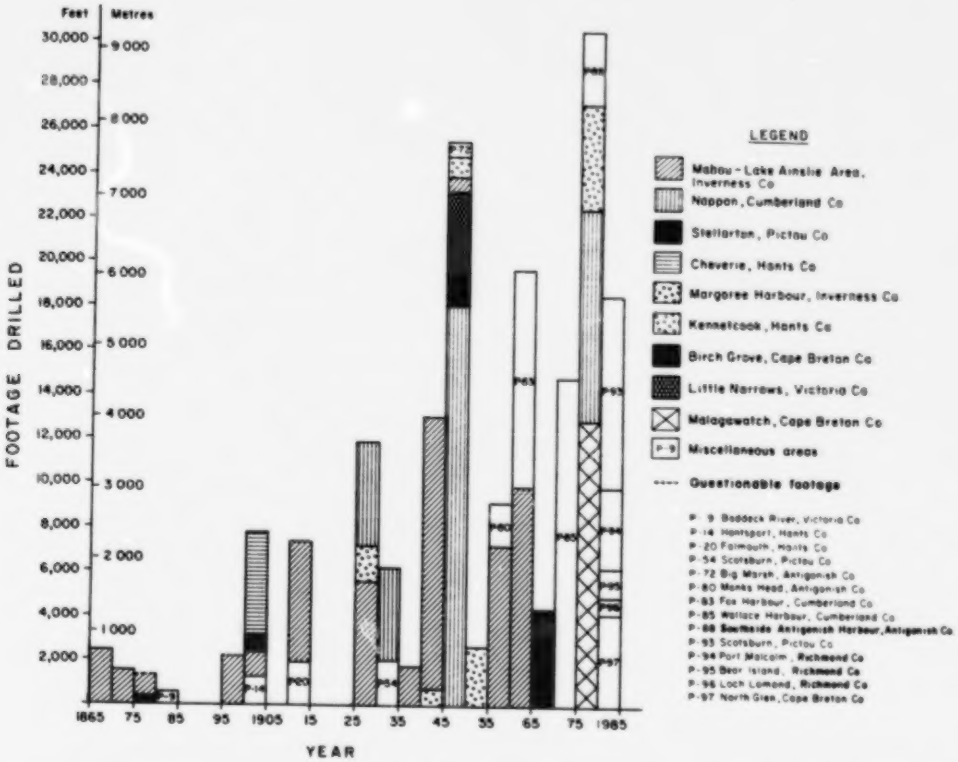

Figure 4. Petroleum wells drilled onshore Nova Scotia; footage drilled, date, and area.

exploration program, resulted in a number of wells being drilled in the later half of the seventies. Chevron also drilled a well in 1981 in the Scotsburn area, Pictou County.

Four wells were drilled during the winter of 1983-84 in southeastern Cape Breton Island.

In July 1984, the new Petroleum Resources Act was proclaimed which provided a regime defining the rights and obligations for onshore petroleum activity and replaced the Petroleum and Natural Gas Act (1956). Regulations for the new Petroleum Resources Act were brought into effect on October 30, 1985, and provide added incentive for exploration for, and development of, petroleum in the onshore region of Nova Scotia.

A comparison of the number of wells drilled with the footage drilled over the years (Figs. 2, 3 and 4) indicates clearly that, as time went on, the wells were drilled to deeper depths. This primarily reflects the advancements in drilling technology and the more aggressive exploration policies of more recent years.

The search for petroleum onshore has primarily concentrated on Carboniferous aged rocks which occur over approximately one-third of the Province. In total 97 wells have been drilled onshore by over 21 different operators. Information derived from these wells has indicated the presence of petroleum (a show) in about one-third of them. In addition, at least another 68 wells, drilled for purposes other than petroleum, reported petroleum shows. The most recent show was in October 1985 in a well drilled for water on the eastern side of Lake Ainslie, Inverness County where oil was pumped to surface from a depth of approximately 80 feet (24.4 m).

Figure 5 shows the four major map areas shown in detail in Figures 6, 7, 8, and 9. The drillholes are located on these Figures.

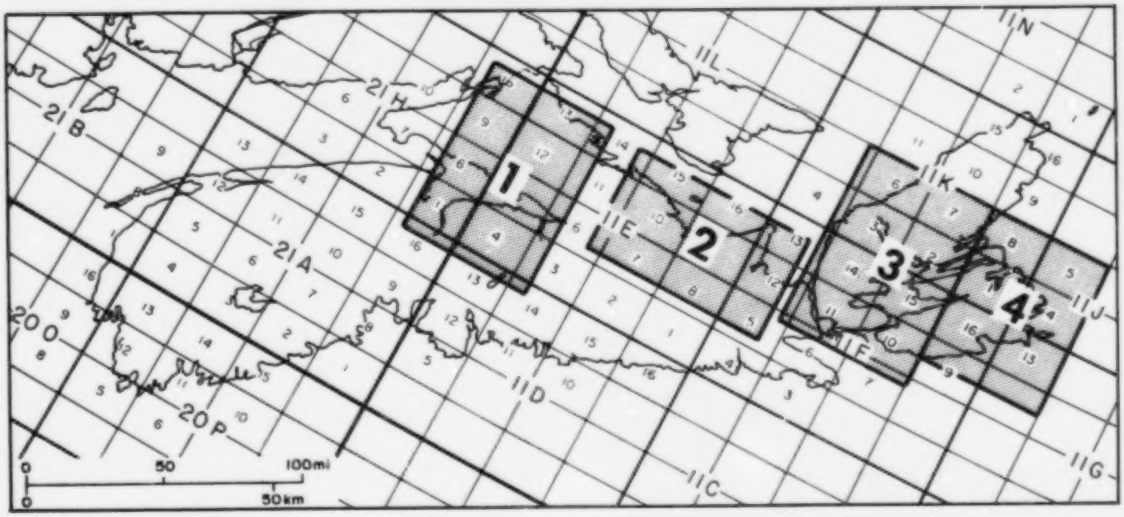

Figure 5. Index to maps included in report, maps 1-4.

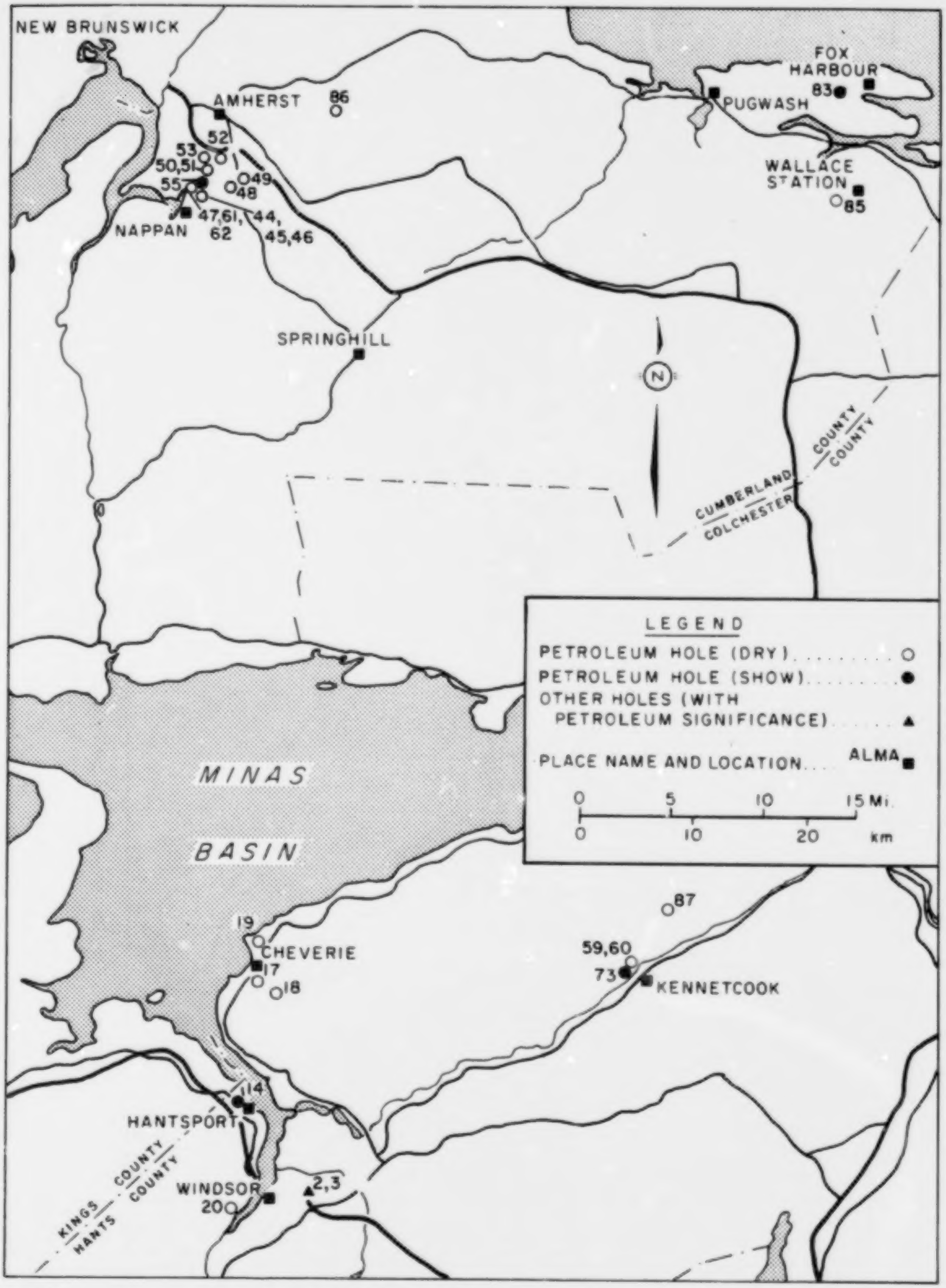
NEW BRUNSWICK
AMHERST
86
52
53
50,51
55
49
48
47,61,
62
44,
45,46
NAPPAN
PUGWASH
FOX
HARBOUR
83
WALLACE
STATION
85
SPRINGHILL
N
CUMBERLAND
COUNTY
COLCHESTER
COUNTY
LEGEND
PETROLEUM HOLE (DRY) ○
PETROLEUM HOLE (SHOW) ●
OTHER HOLES (WITH PETROLEUM SIGNIFICANCE) ▲
PLACE NAME AND LOCATION ALMA ■
0
5
10
15 Mi.
0
10
20
km
MINAS
BASIN
19
CHEVERIE
17
18
87
59,60
73
KENNETCOOK
114
HANTSPORT
WINDSOR
20
2,3
KINGS
COUNTY
HANTS
COUNTY

Figure 6. Petroleum wells and drillholes with petroleum significance, map 1, Amherst, Cumberland County.

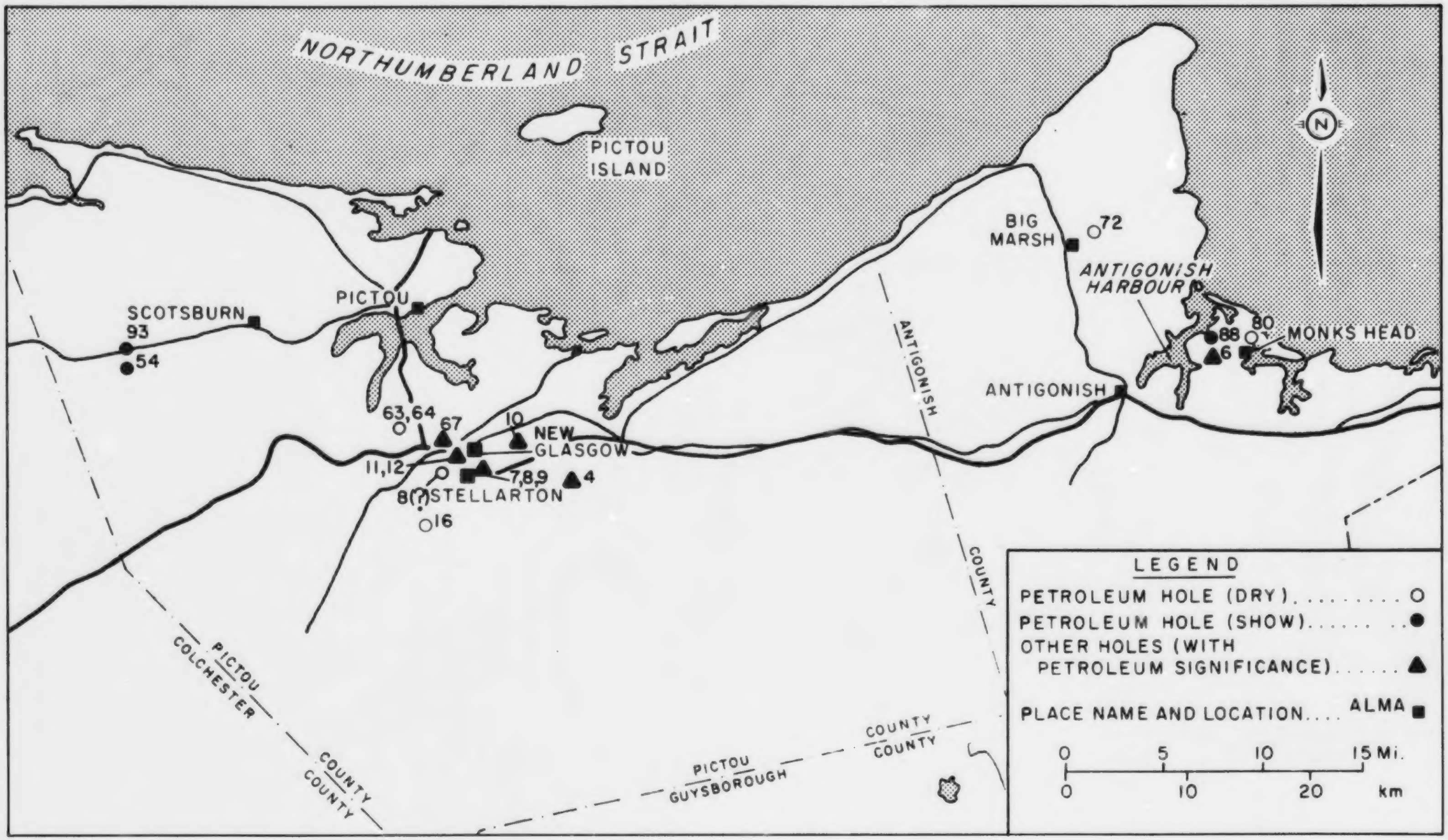
NORTHUMBERLAND STRAIT
PICTOU ISLAND
N
SCOTSBURN
93
54
PICTOU
63,64
67
10
NEW GLASGOW
11,12
7,8,9
4
8(?)
STELLARTON
16
BIG MARSH
72
ANTIGONISH HARBOUR
80
88
6
MONKS HEAD
ANTIGONISH
ANTIGONISH COUNTY
PICTOU COLCHESTER
COUNTY COUNTY
PICTOU GUYSBOROUGH
COUNTY COUNTY
LEGEND
PETROLEUM HOLE (DRY) .... ○
PETROLEUM HOLE (SHOW) ...... ●
OTHER HOLES (WITH PETROLEUM SIGNIFICANCE) ...... ▲
PLACE NAME AND LOCATION .... ALMA ■
0 5 10 15 Mi.
0 10 20 km

Figure 7. Petroleum wells and drillholes with petroleum significance, map 2, New Glasgow, Pictou County.

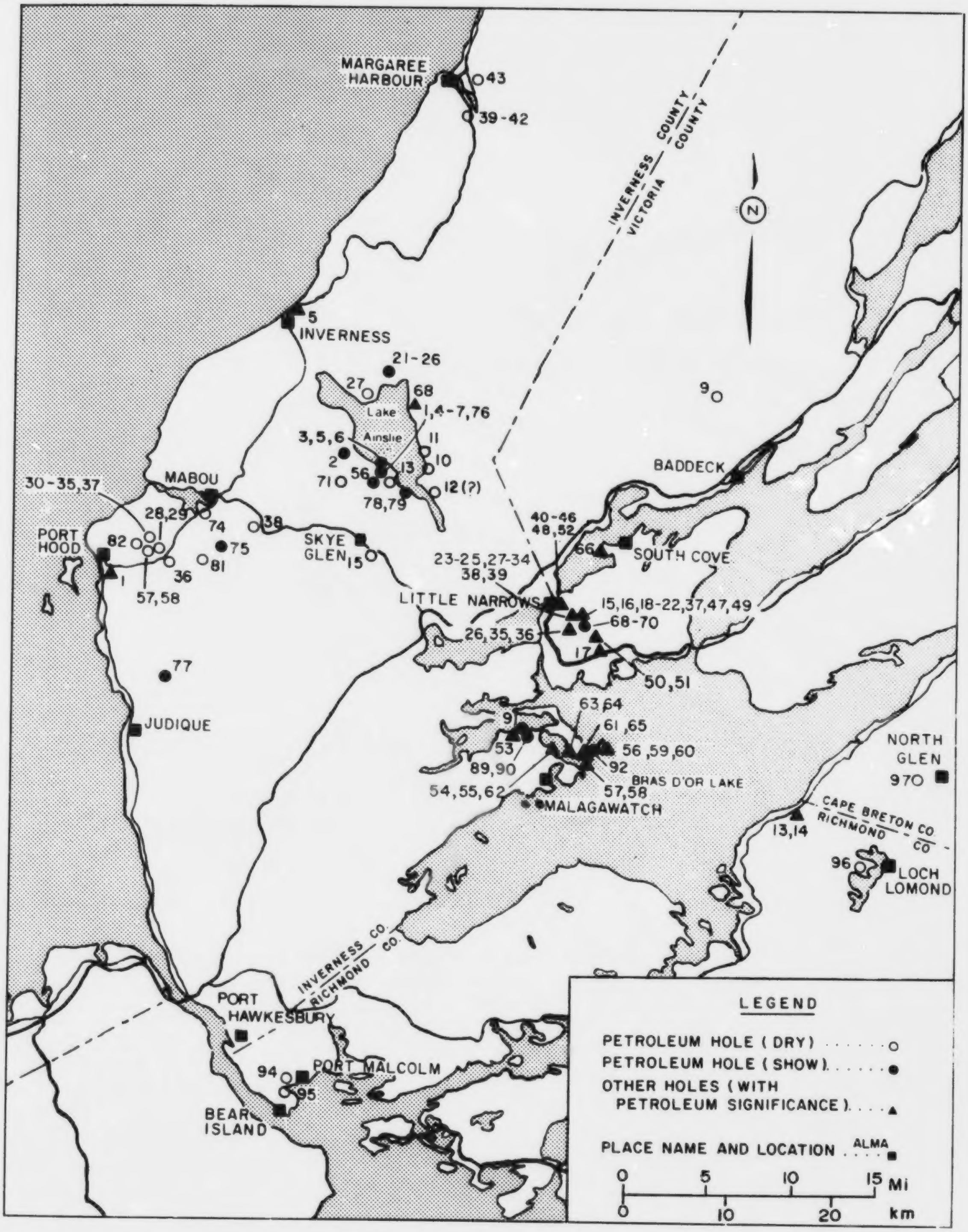
MARGAREE HARBOUR
43
39-42
INVERNESS COUNTY
VICTORIA COUNTY
N
5
INVERNESS
21-26
27
68
Lake
Ainslie
1,4-7,76
3,5,6
11
2
10
13
56
71
12(?)
78,79
MABOU
30-35,37
28,29
74
38
PORT HOOD
82
75
SKYE GLEN
15
1
36
81
57,58
77
JUDIQUE
9
BADDECK
40-46
48,52
66
SOUTH COVE
23-25,27-34
38,39
LITTLE NARROWS
15,16,18-22,37,47,49
26,35,36
68-70
17
50,51
63,64
61,65
53
56,59,60
89,90
92
54,55,62
57,58
BRAS D'OR LAKE
MALAGAWATCH
NORTH GLEN
97
CAPE BRETON CO.
RICHMOND CO
13,14
96
LOCH LOMOND
INVERNESS CO.
RICHMOND CO.
PORT HAWKESBURY
94
PORT MALCOLM
95
BEAR ISLAND
LEGEND
PETROLEUM HOLE (DRY) ○
PETROLEUM HOLE (SHOW) ●
OTHER HOLES (WITH PETROLEUM SIGNIFICANCE) ▲
PLACE NAME AND LOCATION ALMA ■
0 5 10 15 Mi
0 10 20 km

Figure 8. Petroleum wells and drillholes with petroleum significance, map 3, Cape Breton Island (west).

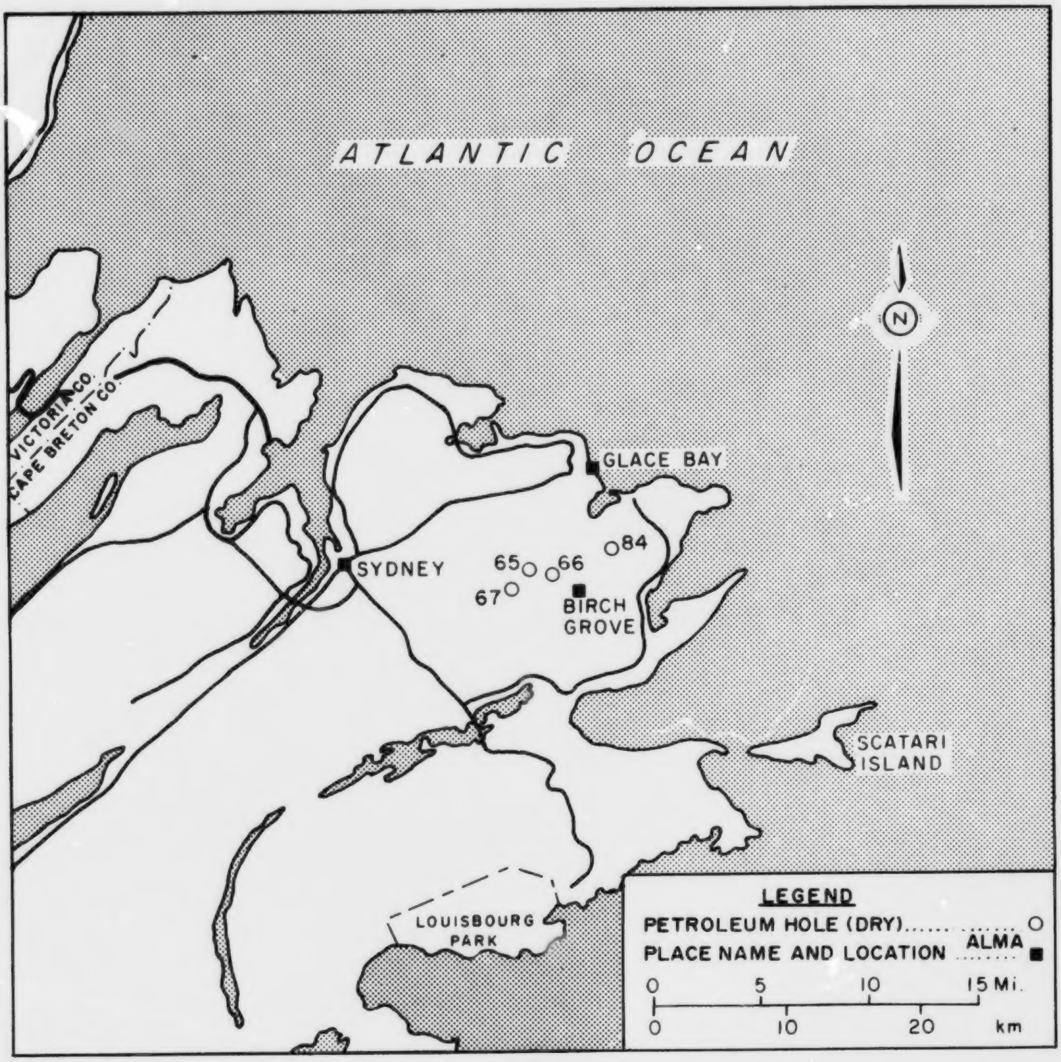
ATLANTIC OCEAN
VICTORIA CO.
CAPE BRETON CO.
N
GLACE BAY
SYDNEY
65
66
84
67
BIRCH GROVE
SCATARI ISLAND
LOUISBOURG PARK
LEGEND
PETROLEUM HOLE (DRY) ○
PLACE NAME AND LOCATION ALMA ■
0 5 10 15 Mi.
0 10 20 km

Figure 9. Petroleum wells and drillholes with petroleum significance, map 4, Cape Breton Island (east).

PETROLEUM WELLS

Well Identifier: P-1

Well Name: Unknown

Company/Contractor: Lake Ainslie Pioneer Oil and Salt Company

Date Spudded: Summer 1869

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 802 feet (244.5 m)

Location - Place: Western side of Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03A

- Co-ordinates: 46°06'22"N± 1'
61°11'00"W± 1'

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference: 1. Nova Scotia Department of Mines, Annual Report, 1877, p. 51.

ADDITIONAL INFORMATION:

This well, the first recorded petroleum exploration well in Nova Scotia, was drilled for oil "near the house of J. McIsaac"[1]. A lease had been granted the previous fall on the adjoining property of McDonald (Tullock).

"The work of boring was proceeded with irregularity, at first by means of a spring-pole, and afterwards with the assistance of a donkey-engine. At a depth of 562 feet oil was 'struck' and some was forced out with salt water under a strong pressure of gas. Pumping was resorted to, and the escaping gas conducted and burnt under the boiler. The yield of oil being small, the Lake Ainslie Pioneer Oil and Salt Company determined to bore deeper and put the hole down at a subsequent time to a depth of 802 feet without further discovery"[1].

Well Identifier:	P-2
Well Name:	Unknown
Company/Contractor:	Lake Ainslie Pioneer Oil and Salt Company
Date Spudded:	1869
Date Rig Released:	1876 (Final TD)
Rig Name/Type:	Unknown
Total Depth:	1,600 feet (487.5 m)
Location - Place:	Western side of Lake Ainslie, Inverness County (Fig. 8)
- NTS:	11K/03A
- Co-ordinates:	46°06'22"N± 1' 61°11'00"W± 1'
Lithologic Log:	Not on file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1877, p. 51.

ADDITIONAL INFORMATION:

This well was drilled for oil three-quarters of a mile (1.2 km) from well P-1, "near the southern end of the McIsaac property and within 20 feet of the shore"[1]. At about 330 feet (100.6 m), oil and salt water were encountered. Pumping attempts failed, and nothing was done until 1876 when the hole was tubed and the boring continued to a depth of 1,600 feet (487.7 m). This attempt was also unsuccessful.

Well Identifier:	P-3
Well Name:	NSDM Record No. 11
Company/Contractor:	Lake Ainslie Pioneer Oil and Salt Company
Date Spudded:	1874
Date Rig Released:	Unknown
Rig Name/Type:	Unknown
Total Depth:	650 feet (198.1 m)
Location - Place:	Western side of Lake Ainslie, Inverness County (Fig. 8)
- NTS:	11K/03A
- Co-ordinates:	46°06'22"N± 1' 61°11'00"W± 1'
Lithologic Log:	Not on file.
Mechanical Logs:	Not on file.
Reference:	1. Geological Survey of Canada, Progress Reports, 1879-84, p. 90 H. 2. Nova Scotia Department of Mines, Annual Report, 1874, p. 59.

ADDITIONAL INFORMATION:

Both well P-3 and well P-4 were drilled for oil on the McIsaac Farm about 1.5 miles (2.4 km) south of Hays River.

The first hole, P-3, "gave indications of oil but was lost at a depth of 650 feet by the breaking of the rods, which could not be recovered"[2].

Together with P-4, "$20,000.00 was expended"[2].

Well Identifier:	P-4
Well Name:	NSDM Record No. 12
Company/Contractor:	Lake Ainslie Pioneer Oil and Salt Company
Date Spudded:	1874
Date Rig Released:	Unknown
Rig Name/Type:	Unknown
Total Depth:	900+ feet (274.3 m)
Location - Place:	Western side of Lake Ainslie, Inverness County (Fig. 8)
- NTS:	11K/03A
- Co-ordinates:	46°06'22"N± 1' 61°11'00"W± 1'
Lithologic Log:	Not on file.
Mechanical Logs:	Not on file.
Reference:	1. Geological Survey of Canada, Progress Reports, 1879-84, p. 90 H. 2. Nova Scotia Department of Mines, Annual Report, 1874, p. 59.

ADDITIONAL INFORMATION:

See also P-3.

"The second hole ... gave better promise of oil, yielding, it is said, nearly 100 gallons, on the borehole standing for several days. Further work was prevented by lack of funds"[2]. Together with Well P-3, "$20,000.00 was expended"[2].

Well Identifier: P-5

Well Name: Unknown

Company/Contractor: Cape Breton Oil and Mining Company

Date Spudded: 1875

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 1,100 feet (335.3 m)

Location - Place: Western side of Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03A

- Co-ordinates: 46°06'22"N± 1'
61°11'00"W± 1'

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Geological Survey of Canada, Progress Reports, 1879-84, p. 90 H.
2. Nova Scotia Department of Mines, Annual Report, 1880, p. 17.

ADDITIONAL INFORMATION:

A borehole drilled for oil was "claimed to have reached the 'third sand rock' at a depth of about 1,000 feet. Considerable quantities of oil have been secured and barrelled for testing in the States. At present the quantity of salt water in the strata has caused a delay, and necessitated fresh pumping appliances. The oil is stated to give the following results:

Gravity 22.5
Flash Test 390°
Fire Test 440°

It was found to be limpid at zero, and in the crude state to be equal to any manufactured lubricant"[2].

Well Identifier: P-6

Well Name: Unknown

Company/Contractor: Lake Ainslie Pioneer Oil and Salt Company

Date Spudded: May 1877

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: Unknown

Location - Place: Western side of Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03A

- Co-ordinates: 46°06'22"N± 1'
61°11'00"W± 1'

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference: 1. Nova Scotia Department of Mines, Annual Report, 1877, p. 51.

ADDITIONAL INFORMATION:

"A few rods to the south (of P-2) on McDonald's Farm, on the lease of Silver and Payne, a well begun in May 1887, and at a depth of from 60 to 100 feet oil was obtained, in all about a barrel"[1]. Boring was to have been "shortly renewed"[1], but no further mention of this hole was revealed by a literature search.

Well Identifier: P-7

Well Name: Unknown

Company/Contractor: Unknown

Date Spudded: Autumn 1877

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: Unknown

Location - Place: Western side of Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03A

- Co-ordinates: 46°06'22"N± 1'
61°11'00"W± 1'

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Geological Survey of Canada, Annual Report, 1897, v. X, p. 102A.
2. Nova Scotia Department of Mines, Annual Report, 1877, p. 51.

ADDITIONAL INFORMATION:

A hole was started in search of oil in the Autumn of 1877 by a Pictou company on a spot a little further to the south of well P-6. Oil was reported to "collect on the surface of the water when the hole is standing ...

"The oil-bearing rocks are of lower carboniferous age, and it would appear that they have been pierced in the deepest boreholes, the grey sandstones giving place to red"[2].

This may be one of the six holes noted in the following by Dr. White: "... six holes in an area of not much more than half an acre ... From one of the wells a small quantity of heavy, black petroleum was obtained by lowering into it a bunch of rags at the end of a pole, and from another, natural gas was escaping in small quantities and could be lighted with a match ..."[1].

Well Identifier: P-8

Well Name: NSDM Record No. 33

Company/Contractor: Unknown

Date Spudded: 1878

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 280 feet (85.3 m)

Location - Place: Stellarton, Pictou County (Fig. 7)

- NTS: 11E/10A

- Co-ordinates: 45°33'36"N± 10"
62°40'00"W± 15"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference: 1. Nova Scotia Department of Mines, Core Record of Boreholes 1871 to 1948, Drilling in Nova Scotia with Government Drills, Miscellaneous Publication, 1950.

ADDITIONAL INFORMATION:

This well has been repeatedly misreferenced in the literature. A search for the original well information yielded no information. The existence of this well cannot be validated.

Well Identifier:	P-9
Well Name:	NSDM Record No. 34
Company/Contractor:	Victoria Oil Company
Date Spudded:	1880
Date Rig Released:	Unknown
Rig Name/Type:	Unknown
Total Depth:	500 feet (152.4 m)
Location - Place:	McRaes Bridge, Baddeck River, Victoria County (Fig. 8)
- NTS:	11K/02C
- Co-ordinates:	46°10'36"N± 43" 62°47'07"W± 45"
Lithologic Log:	Not on file.
Mechanical Logs:	Not on file.
Reference:	1. Geological Survey of Canada, Progress Reports, 1879-84, p. 90 H. 2. Nova Scotia Department of Mines, Annual Report, 1880, p. 17.

ADDITIONAL INFORMATION:

A 6-inch (152 mm) oil exploration hole was "claimed to have struck promising rock"[2].

"Engines and derricks were erected and upwards of $100,000.00 expended in the two years, 1880 to 1881"[1], with no positive results.

Well Identifier: P-10

Well Name: Unknown

Company/Contractor: Unknown

Date Spudded: pre-1897

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: Unknown

Location - Place: East Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03A

- Co-ordinates: 46°06'30"N± 1'
61°07'49"W± 1'

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Douglas, G. V. and MacKay, F. R., Geology Map: Barytes and Fluorspar Deposits - East Side Lake Ainslie, Inverness County, 1944.
2. Geological Survey of Canada, Annual Report, 1897, v. X, p. 102A - 103A.

ADDITIONAL INFORMATION:

In reference 2 above, quotes from Dr. I. C. White indicate that he found more than a dozen wells in the field, eight or ten on the western shore of Lake Ainslie and three on the eastern shore. P-10 and P-11 are probably two of the three wells referred to on the eastern side.

The locations were taken from a map by D. V. Douglas and F. R. MacKay, 1944. No other records could be found regarding these two wells.

Well Identifier:	P-11
Well Name:	Unknown
Company/Contractor:	Unknown
Date Spudded:	pre-1897
Date Rig Released:	Unknown
Rig Name/Type:	Unknown
Total Depth:	Unknown
Location - Place:	East Lake Ainslie, Inverness County (Fig. 8)
- NTS:	11K/03A
- Co-ordinates:	46°07'13"N± 30" 61°08'26"W± 30"
Lithologic Log:	Not on file.
Mechanical Logs:	Not on file.
Reference:	1. Douglas, G. V. and MacKay, F. R., Geology Map: Barytes and Fluorspar Deposits - East Side Lake Ainslie, Inverness County, 1944. 2. Geological Survey of Canada, Annual Report, 1897, v. X, p. 102A - 103A.

ADDITIONAL INFORMATION:

See P-10.

Well Identifier:	P-12
Well Name:	NSDM Record No. 52
Company/Contractor:	Unknown
Date Spudded:	1897
Date Rig Released:	Unknown
Rig Name/Type:	Unknown
Total Depth:	Unknown
Location - Place:	Lake Ainslie, Inverness County (exact location unknown, Fig. 8)
- NTS:	11K/03
- Co-ordinates:	46°07'N± 10' 61°07'W± 10'
Lithologic Log:	Not on file.
Mechanical Logs:	Not on file.
Reference:	1. Geological Survey of Canada, Annual Report, 1897, v. X, p. 102A. 2. Nova Scotia Department of Mines, Core Record of Boreholes 1871 to 1948, Drilling in Nova Scotia with Government Drills, Miscellaneous Publication, 1950.

ADDITIONAL INFORMATION:

In reference 1 above, quotes from Dr. I. C. White indicate that he found more than a dozen wells in the field, eight or ten on the western shore of Lake Ainslie and three on the eastern shore. P-12 is probably one of the three wells referred to on the eastern side.

Well Identifier: P-13

Well Name: Unknown

Company/Contractor: Unknown

Date Spudded: Approximately April 20, 1898

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 2,240 feet (682.8 m) on October 19, 1898

Location - Place: Western side of Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03A

- Co-ordinates: 46°07'N± 10'
61°10'W± 10'

Lithologic Log: Not on File.

Mechanical Logs: Not on File.

Reference: 1. Nova Scotia Department of Mines, Annual Report, 1898, p. 26.

ADDITIONAL INFORMATION:

"On October 19, 1898, Mr. P. Neville, Deputy Inspector of Mines, encountered a man named S. S. Creese prospecting for oil who was employed by two gentlemen, Nowen and Gaston, from Roxbury, Boston. A 4 3/4-inch (12.1 cm) hole was being drilled, operated by a 15 h.p. engine. On that day the hole had been sunk to a depth of 2,240 feet (682.8 m). At a depth of 1,600 feet (487.7 m) salt water was struck".[1] The exact location of this hole is unknown.

Well Identifier: P-14

Well Name: Unknown

Company/Contractor: Unknown

Date Spudded: 1902

Date Rig Released: Unknown

Rig Name/Type: A Calyx drill (Fig. 10)

Total Depth: 1,300 feet (396.2 m)

Location - Place: Near the Hants County-Kings County boundary (Fig. 6)

- NTS: 21H/01A

- Co-ordinates: 45°04'07"N± 10"
64°11'12"W± 15"

Lithologic Log: Summary log on file.

Mechanical Logs: Not on File.

Reference: 1. Geological Survey of Canada, Annual Report 1902-03, v. XV, p. 393A - 394A.

ADDITIONAL INFORMATION:

A hole was drilled "by the enterprise of a few citizens of Hantsport"[1] with Mr. Clarence Smith of that town in charge. "The site chosen is in a brook near the boundary between the counties of Hants and Kings, half a mile west of the railway station, at a point where search had previously been made for coal. Grey sandstones and shales of the Horton Series, known elsewhere to contain important quantities of albertite, rich bituminous shale and petroleum, lay in the brook with a low northerly dip ... . Some of the shales were said to have yielded the characteristic odour of petroleum. At 150 feet a strong feeder of water was struck"[1].

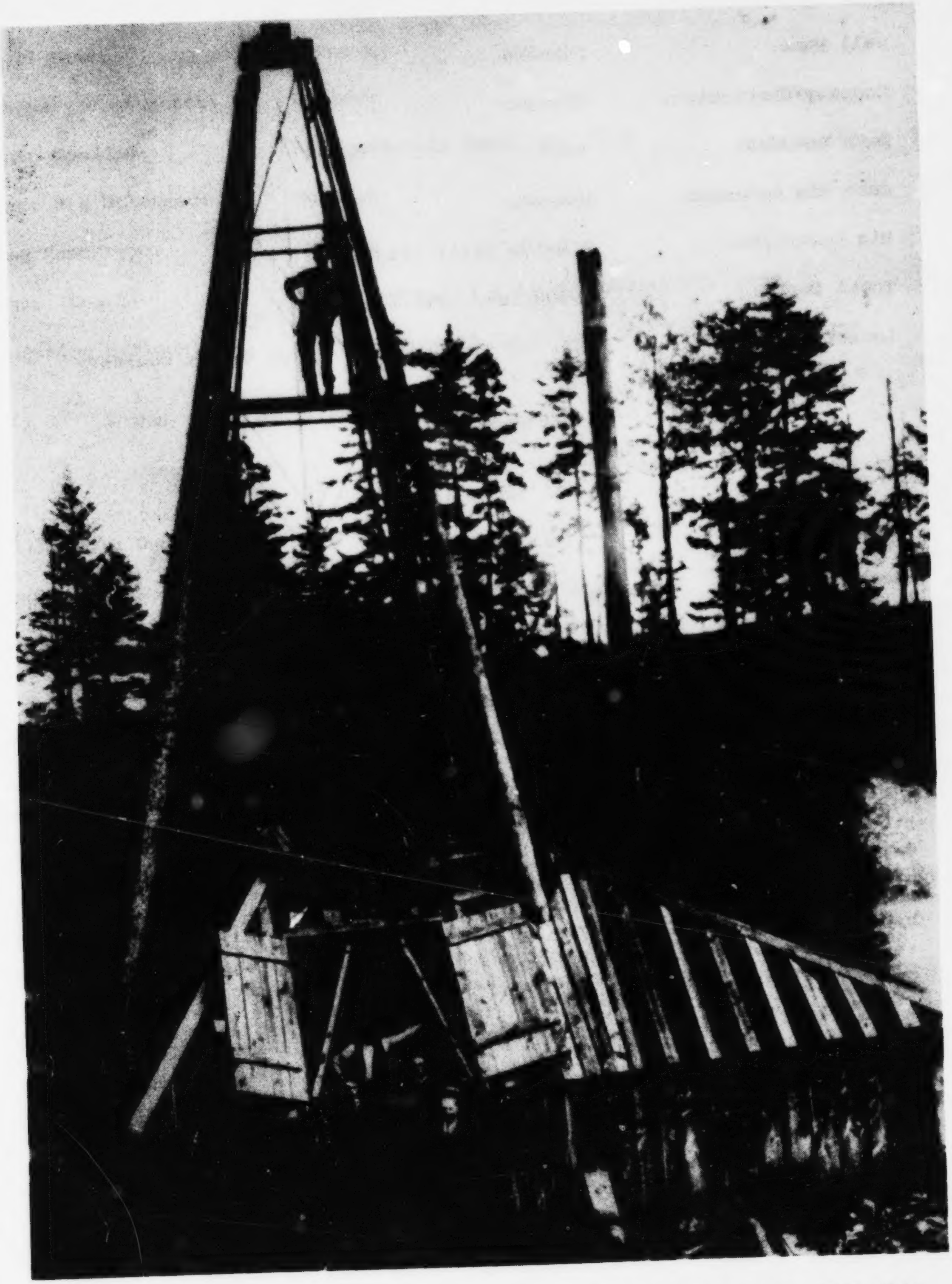

Figure 10. Class B Calyx drill, Hantsport, Hants County, 1902-1903. Nova Scotia Department of Mines and Energy, photo files, Halifax, Nova Scotia.

Well Identifier:	P-15
Well Name:	NSDM Record No. 88
Company/Contractor:	Unknown
Date Spudded:	Summer 1902
Date Rig Released:	Unknown
Rig Name/Type:	A churn drill
Total Depth:	More than 1,100 feet (335.3 m)
Location - Place:	Skye Glen, Inverness County (Fig. 8)
- NTS:	11K/03A
- Co-ordinates:	46°01'51"N± 1' 61°11'48"W± 1'
Lithologic Log:	Not on file.
Mechanical Logs:	Not on file.
Reference:	1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Ainslie Basin, Nova Scotia Department of Mines and Energy, Assessment Report, 11K/03 39-J-00(06), 1914-1958. 2. Geological Survey of Canada, Annual Report 1902-03, v. XV, p. 394A.

ADDITIONAL INFORMATION:

No information was found for this well other than the above and the fact that it was an unsuccessful attempt to find oil.

Well Identifier: See Additional Information below

Well Name: Unknown

Company/Contractor: Unknown

Date Spudded: 1902

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 3,260 feet (993.6 m)

Location - Place: Lake Ainslie, Inverness County

- NTS: Unknown

- Co-ordinates: Unknown

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference: 1. Geological Survey of Canada, Annual Report, 1902-03, v. XV, p. 394A.

ADDITIONAL INFORMATION:

NOTE: A well, which was referenced in several reports to have been drilled in the Lake Ainslie area to a depth of 3,260 feet (993.6 m) in 1902, does not in fact seem to have been drilled at all. All references can be traced back to an ambiguous statement referring to both Quebec and Lake Ainslie, which was found in reference 1 above. No other data could be found, so it is believed that this well may have been a well drilled for oil in Gaspé, Quebec, since a literature search revealed drilling had reached depths of over 3,000 feet (914 m) in that area during the early 1900s.

Well Identifier:	P-16
Well Name·	NSDM Record No. 91
Company/Contractor:	Unknown
Date Spudded:	November 18, 1902
Date Rig Released:	July 10, 1903
Rig Name/Type:	Drill #2
Total Depth:	620 feet (189 m)
Location - Place:	Foxbrook Road, Pictou County (Fig. 7)
- NTS:	11E/10A
- Co-ordinates:	45°31'18"N± 12" 62°42'25"W± 10"
Lithologic Log:	On File.
Mechanical Logs:	Not on File.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1903, p. 78.

ADDITIONAL INFORMATION:

An oil exploration well was drilled, without success, "about a quarter of a mile east of Foxbrook Road and about two miles from the Drummond Colliery"[1].

Well Identifier: P-17

Well Name: Cheverie No. 1, NSDM Record No. 90

Company/Contractor: Nova Scotia Oil and Gas Company

Date Spudded: 1903

Date Rig Released: Unknown

Rig Name/Type: A cable drill

Total Depth: 1,910 feet (582.2 m)

Location - Place: Cheverie, Hants County (Fig. 6)

- NTS: 21H/01D

- Co-ordinates: 45°09'35"N± 10"
64°09'54"W± 10"

Lithologic Log: On File.

Mechanical Logs: Not on File.

Reference:

1. Fletcher, H., Walton Map Sheet, No. 74, Geological Survey of Canada, 1905.
2. Geological Survey of Canada, Annual Report, 1902-03, v. XV, p. 393A - 394A.
3. Howie, R. D., Cumming, L. M., Basement Features of the Canadian Appalachians, Geological Survey of Canada, Bulletin 89, 1963, Table 1.
4. Nova Scotia Department of Mines, Annual Report, 1906, p. 50.
5. Nova Scotia Department of Mines, Annual Report, 1930, Part 2, Map No. 12.

ADDITIONAL INFORMATION:

The Nova Scotia Oil and Gas Company carried out extensive boring operations during 1903, spurred on by the well known presence of "oil permeating the gypsum"[4] in the vicinity of the Burgess Brothers plaster quarry[4].

Some confusion in the literature exists concerning how many petroleum wells were drilled in this area around 1903. The confusion arises due to varying total depths being reported and due also to the names Cheverie No. 1 and Cheverie No. 2 being interchanged.

P-17 ADDITIONAL INFORMATION: (cont'd)

A well drilled to a depth of 2,074 feet (632.2 m) was plotted as Cheverie No. 2 on a compilation map found in the Nova Scotia Department of Mines and Energy Library but is believed to be Cheverie No. 1. It seems that the well depths 2,074 feet (632.2 m), 2,100 feet (640.1 m) and 1,910 feet (582.2 m) found in the literature correspond to Cheverie No. 1. The depth of 1,875 feet (571.5 m) is probably in reference to the well 1,900-feet (579.1 m) deep plotted on Fletcher's map[1] (see P-18 and P19). Very little documentation is available on a third well drilled to 1,000 feet (304.8 m).

Cheverie No. 1 was located at Cheverie Creek, one mile above high tide level[3]. No sign of petroleum was found.

Well Identifier: P-18

Well Name: Unknown

Company/Contractor: Nova Scotia Oil and Gas Company

Date Spudded: 1903

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 1,900 feet (579.1 m)

Location - Place: Cheverie, Hants County (Fig. 6)

- NTS: 21H/01D

- Co-ordinates: 45°08'47"N± 15"
64°08'42"W± 22"

Lithologic Log: Not on file.

Mechanical Logs: Not on File.

Reference:

1. Fletcher, H., Walton Map Sheet, No. 74, Geological Survey of Canada, 1905.
2. Geological Survey of Canada, Progress Reports, 1980, p. 148.
3. Nova Scotia Department of Mines, Annual Report, 1930, Part 2, Map No. 12.

ADDITIONAL INFORMATION:

See P-17.

This hole was plotted a short distance to the north of Cheverie No. 1 (P-17) on the maps referenced above[1,3]. There is no other record of this hole.

Well Identifier: P-19

Well Name: Unknown

Company/Contractor: Nova Scotia Oil and Gas Company(?)

Date Spudded: 1903(?)

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 1,000 feet (304.8 m)

Location - Place: Cheverie, Hants County (Fig. 6)

- NTS: 21H/01D

- Co-ordinates: 45°10'23"N± 30"
64°09'45"W± 30"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Fletcher, H., Walton Map Sheet No. 74, Geological Survey of Canada, 1905.
2. Geological Survey of Canada, Progress Report, 1908, p. 148.
3. Nova Scotia Department of Mines, Annual Report, 1930, Part 2, Map No. 12.

ADDITIONAL INFORMATION:

See P-17.

According to the above reference, another borehole said to be 1,000 feet (304.8 m) deep, was drilled for oil at Johnston Point, Cheverie, north of the "other two wells"[2]. This probably refers to the wells 1,910 feet (582.2 m) and 1,900 feet (579.1 m) deep (P-17 and P-18).

It is assumed that Johnston Point corresponds to Split Rock north of Johnson Cove on the Fletcher map[1].

Evidence suggests that this hole is one of the Nova Scotia Oil and Gas Company holes drilled around 1903.

Well Identifier:	P-20
Well Name:	Falmouth Station No. 1
Company/Contractor:	Unknown
Date Spudded:	1911
Date Rig Released:	Unknown
Rig Name/Type:	Unknown
Total Depth:	1,911 feet (582.5 m)
Location - Place:	Falmouth Station, Hants County (Fig. 6)
- NTS:	21A/16D
- Co-ordinates:	44°59'09"N± 10" 64°10'13"W± 15"
Lithologic Log:	Not on file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1930, Part 2, p. 126-127.

ADDITIONAL INFORMATION:

The well was drilled for oil by a private company with Mr. O. V. Kennedy in charge of drilling. The well encountered brine but no salt or oil. The well was reported to have had a slight overflow of salt water after hitting a depth of 1,200 feet (365.8 m). "Mr. Kennedy says that this well passed through 1,200 feet of gypsum, then into sandstone, and finally at 1,600 feet 'slate' (probably dark shale suggesting Lower Horton)"[1].

Well Identifier: P-21

Well Name: Lake Ainslie No. 1

Company/Contractor: Maritime Oil and Gas Company Ltd. (Fig. 11)

Date Spudded: 1912

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 800 feet (243.8 m)

Location - Place: North Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03D

- Co-ordinates: 46°11'03"N± 20"
61°11'10"W± 30"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Ainslie Basin, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(06), 1914-1958.
2. Nova Scotia Department of Mines, Annual Report, 1928, p. 267.
3. Rostoker, M. D. and Cote, P. R., Imperial Oil Ltd., Exploration Work on Licence No. 1, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(05), 1958.

ADDITIONAL INFORMATION:

During the years 1912 to 1914, drilling was conducted at North Lake Ainslie, Inverness County, by the Maritime Oil and Gas Company Ltd.[1]. Five holes were reported drilled with a sixth well proposed and about to be started. These were all located within one square mile (2.6 km^2) north of Doherty Cove about one quarter of a mile (400 m) east of the Dunbar farm turnoff on the Scotsville Road. It was reported that oil sands and natural gas were encountered in all the holes and that oil flowed from one well but, in an effort to complete the hole, the drillers lost their bit and were forced to abandon the well[1].

The drilling was done with standard oil drilling equipment supplied by the Oil Wells Supply Company. A 75-foot (22.9 m) derrick was used[1].

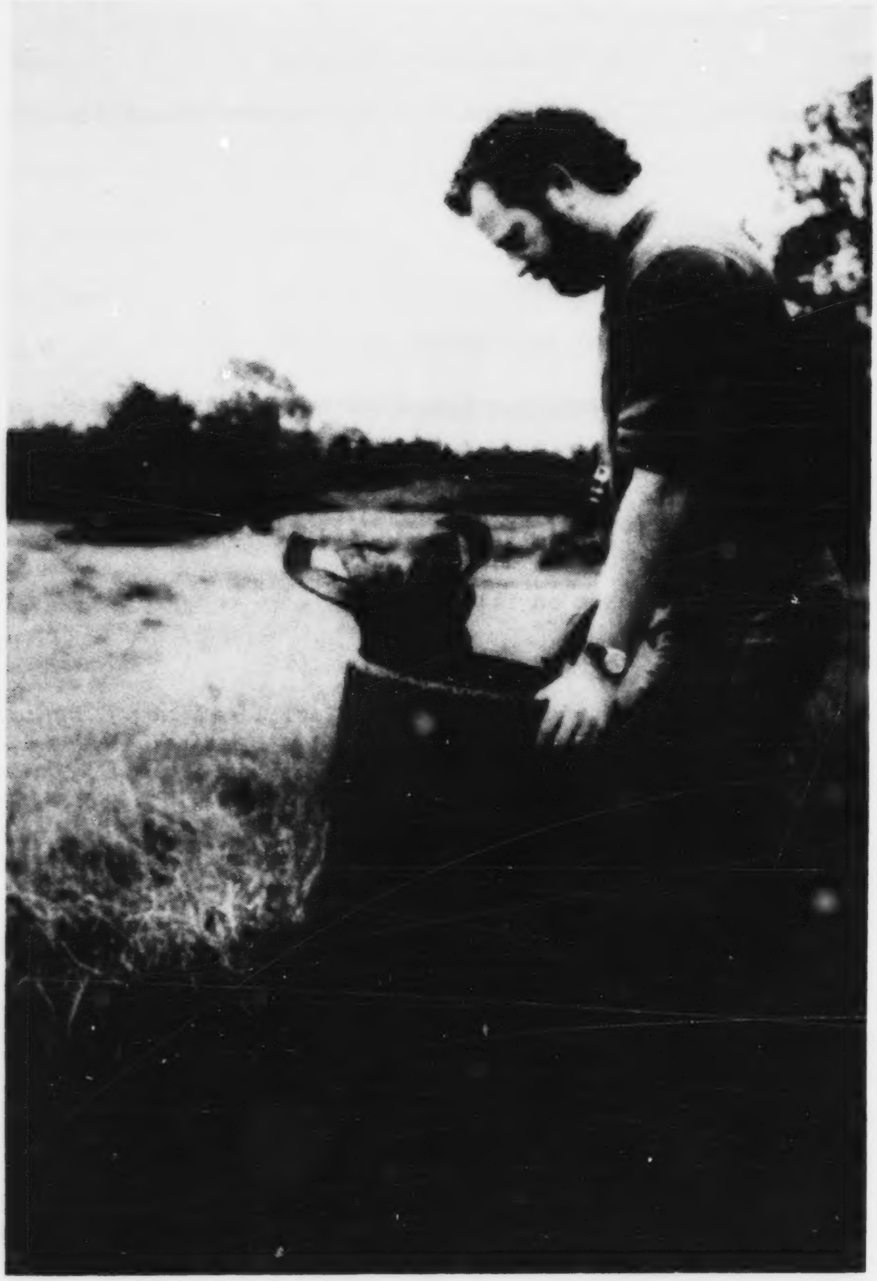

Figure 11. Abandoned wellhead, drilled by Maritime Oil and Gas Company Ltd. at North Ainslie, 1912.

Well Identifier: P-22

Well Name: Lake Ainslie No. 2

Company/Contractor: Maritime Oil and Gas Company Ltd.

Date Spudded: 1912

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 1,612 feet (491.3 m)

Location - Place: North Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03D

- Co-ordinates: 46°11'07"N± 20"
61°11'05"W± 30"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Ainslie Basin, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(06), 1914-1958.
2. Nova Scotia Department of Mines, Annual Report, 1928, p. 267.
3. Rostoker, M. D. and Cote, P. R., Imperial Oil Ltd., Exploration Work on Licence No. 1, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(05), 1958.

ADDITIONAL INFORMATION:

See P-21.

It was stated that at Lake Ainslie No. 2, in July 1912, over 215 feet (65.5 m) of oil sands were drilled. Two beds were 75 feet (22.9 m) and 130 feet (39.6 m) thick. The No. 2 hole has been "cased and capped, ready for shooting"[1].

Well Identifier: P-23

Well Name: Lake Ainslie No. 3

Company/Contractor: Maritime Oil and Gas Company Ltd.

Date Spudded: 1912 to 1914

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 1,120 feet (341.4 m)

Location - Place: North Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03D

- Co-ordinates: 46°11'05"N± 20"
61°11'06"W± 30"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Ainslie Basin, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(06), 1914-1958.
2. Nova Scotia Department of Mines, Annual Report, 1928, p. 267.
3. Rostoker, M. D. and Cote, P. R., Imperial Oil Ltd., Exploration Work on Licence No. 1, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(05), 1958.

ADDITIONAL INFORMATION:

See P-21.

Well Identifier: P-24

Well Name: Lake Ainslie No. 4

Company/Contractor: Maritime Oil and Gas Company Ltd.

Date Spudded: 1912 to 1914

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 1,110 feet (335.3 m)

Location - Place: North Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03D

- Co-ordinates: 46°11'04"N± 20"
61°10'56"W± 30"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Ainslie Basin, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(06), 1914-1958.
2. Nova Scotia Department of Mines, Annual Report, 1928, p. 267.
3. Rostoker, M. D. and Cote, P. R., Imperial Oil Ltd., Exploration Work on Licence No. 1, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(05), 1958.

ADDITIONAL INFORMATION:

See P-21.

Well Identifier: P-25

Well Name: Lake Ainslie No. 5

Company/Contractor: Maritime Oil and Gas Company Ltd.

Date Spudded: 1912 to 1914 (probably 1914)

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 870 feet (265.2 m)

Location - Place: North Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03D

- Co-ordinates: 46°10'55"N± 20"
61°11'07"W± 30"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Ainslie Basin, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(06), 1914-1958.
2. Nova Scotia Department of Mines, Annual Report, 1928, p. 267.
3. Rostoker, M. D. and Cote, P. R., Imperial Oil Ltd., Exploration Work on Licence No. 1, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(05), 1958.

ADDITIONAL INFORMATION:

See P-21.

A company report dated 1914 stated that progress was slow due to the "many crevices and beds of quicksands met"[1].

Well Identifier: P-26

Well Name: Lake Ainslie No. 6

Company/Contractor: Maritime Oil and Gas Company Ltd.

Date Spudded: 1912 to 1914 (probably 1914)

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: No Record. Prognosed depth 5,502 feet (1677.0 m)

Location - Place: North Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03D

- Co-ordinates: 46°10'55"N± 20"
61°11'07"W± 30"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Ainslie Basin, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(06), 1914-1958.
2. Nova Scotia Department of Mines, Annual Report, 1928, p. 267.
3. Rostoker, M. D. and Cote, P. R., Imperial Oil Ltd., Exploration Work on Licence No. 1, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(05), 1958.

ADDITIONAL INFORMATION:

See P-21.

This well was to be located nearer the lake than the other five. Due to the lack of data concerning this well, there is some doubt as to whether or not it was drilled. If it was drilled, it is most improbable that the prognosed total depth of 5,502 feet (1677.0 m) was reached.

Well Identifier: P-27

Well Name: Unknown

Company/Contractor: Eastern Gulf Oil Company

Date Spudded: 1926

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 900 feet (274.3 m)

Location - Place: North Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03D

- Co-ordinates: 46°09'48"N± 10" or 46°10'02"N± 10"
61°12'46"W± 15" 61°12'46"W± 15"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Ainslie Basin, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(06), 1914-1958.
2. Grieve, R. O., Imperial Oil Ltd., Exploration Work on Licence No. 1, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(04), 1956-1957.

ADDITIONAL INFORMATION:

"The Eastern Gulf Oil Company drilled eleven structural and stratigraphic test holes in the vicinity of South West Mabou, and Glengarry, and one on the southern flank of the Mount Young structure"[1]. No other record of this one well could be found. It is assumed that the hole plotted on maps included with the above references (slightly different locations)[1,2] represents the same well.

Well Identifier: P-28

Well Name: NSDM Record No. 484, Borehole No. 1

Company/Contractor: Gulf Oil Company

Date Spudded: June 17, 1926

Date Rig Released: September 17, 1926

Rig Name/Type: Diamond Drill No. 1 (NSDM)

Total Depth: 702 feet (214.0 m)

Location - Place: Southwest Mabou, Inverness County (Fig. 8)

- NTS: 11K/03B

- Co-ordinates: 46°01'35"N± 10"
61°27'13"W± 10"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference: 1. Nova Scotia Department of Mines, Annual Report, 1926, p. 136.

ADDITIONAL INFORMATION:

The well, drilled for structural information, had no indications of oil. The hole was located 1,104 feet (336.5 m) north of "South Mabou Bridge". Drilling was said to have been "very difficult"[1] with the "hole caving continually"[1].

Well Identifier:	P-29
Well Name:	NSDM Record No. 485, Borehole No. 2
Company/Contractor:	Eastern Gulf Oil Company
Date Spudded:	September 18, 1926
Date Rig Released:	January 10, 1927
Rig Name/Type:	Diamond Drill No. 1 (NSDM)
Total Depth:	582 feet (177.4 m)
Location - Place:	Southwest Mabou, Inverness County (Fig. 8)
- NTS:	11K/03B
- Co-ordinates:	46°01'36"N± 10" 61°27'13"W± 10"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1926, p. 137. 2. Nova Scotia Department of Mines, Annual Report, 1927, p. 152-153.

ADDITIONAL INFORMATION:

"The hole was abandoned on January 10, 1927, as hole was caving badly and no progress was made in depth after November 2, 1926"[2].

Well Identifier:	P-30
Well Name:	NSDM Record No. 505, Borehole No. 1
Company/Contractor:	Gulf Oil Company
Date Spudded:	September 11, 1926
Date Rig Released:	September 19, 1926
Rig Name/Type:	Diamond Drill No. 8 (NSDM) (Fig. 12)
Total Depth:	76 feet 2 inches (23.32 m)
Location - Place:	Southwest Mabou, Inverness County (Fig. 8)
- NTS:	11K/03B
- Co-ordinates:	46°02'32"N± 15" 61°28'03"W± 15"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1926, p. 150.

ADDITIONAL INFORMATION:

The hole was located on the "property line between Angus J. Cameron and Sandy Cameron, about 8,000 feet northwest of the Southwest Mabou Bridge , or 1,000 feet northwest of the Hunter Road"[1]. The hole was drilled for structural information.

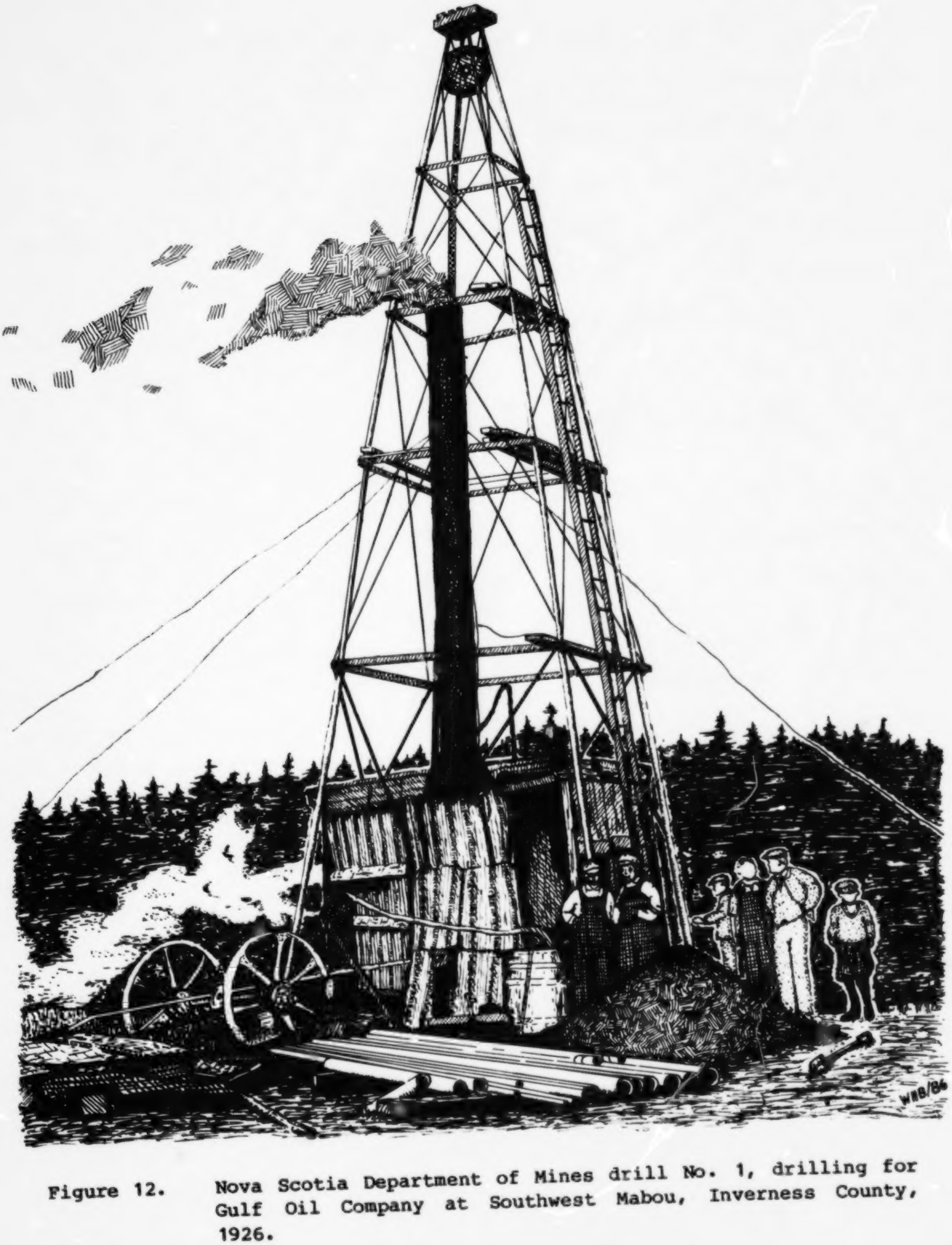

Figure 12. Nova Scotia Department of Mines drill No. 1, drilling for Gulf Oil Company at Southwest Mabou, Inverness County, 1926.

Well Identifier:	P-31
Well Name:	NSDM Record No. 506, Borehole No. 2
Company/Contractor:	Eastern Gulf Oil Company
Date Spudded:	September 22, 1926
Date Rig Released:	October 12, 1926
Rig Name/Type:	Diamond Drill No. 8 (NSDM)
Total Depth:	215 feet (65.5 m)
Location - Place:	Glengarry, Inverness County (Fig. 8)
- NTS:	11K/03B
- Co-ordinates:	46°02'34"N± 15" 61°27'57"W± 15"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1926, p. 151.

ADDITIONAL INFORMATION:

The hole was drilled for structural information. Red shales with no petroleum shows were intersected. The hole was located on Dan C. Campbell's property 500 feet (152.4 m) northeast of NSDM Record No. 505 (P-30) and 423 feet (128.9 m) due west of "the western corner of D. C. Campbell's house on Hunter Road"[1] in Glengarry.

Well Identifier:	P-32
Well Name:	NSDM Record No. 524, Borehole No. 3
Company/Contractor:	Eastern Gulf Oil Company
Date Spudded:	October 13, 1926
Date Rig Released:	October 23, 1926
Rig Name/Type:	Diamond Drill No. 8 (NSDM)
Total Depth:	110 feet (33.5 m)
Location - Place:	Glengarry, Inverness County (Fig. 8)
- NTS:	11K/03B
- Co-ordinates:	46°02'36"N± 15" 61°27'57"W± 15"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1927, p. 163.

ADDITIONAL INFORMATION:

This well was drilled for structural information "on the property of John D. Cameron ..., 500 feet north of borehole No. 2"[1], NSDM Record No. 506 (P-31).

Well Identifier:	P-33
Well Name:	NSDM Record No. 525, Borehole No. 4
Company/Contractor:	Eastern Gulf Oil Company
Date Spudded:	October 23, 1926
Date Rig Released:	November 4, 1926
Rig Name/Type:	Diamond Drill No. 8 (NSDM)
Total Depth:	220 feet (67.1 m)
Location - Place:	Glengarry, Inverness County (Fig. 8)
- NTS:	11K/03B
- Co-ordinates:	46°02'36"N± 15" 61°27'57"W± 15"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1927, p. 163.

ADDITIONAL INFORMATION:

The well was drilled for structural information "on the property of Angus Cameron ..., 500 feet south of No. 2 hole"[1], NSDM Record No. 506 (P-31).

Well Identifier:	P-34
Well Name:	NSDM Record No. 526, Borehole No. 5
Company/Contractor:	Eastern Gulf Oil Company
Date Spudded:	November 5, 1926
Date Rig Released:	November 12, 1926
Rig Name/Type:	Diamond Drill No. 8 (NSDM)
Total Depth:	177 feet (53.9 m)
Location - Place:	Glengarry, Inverness County (Fig. 8)
- NTS:	11K/03B
- Co-ordinates:	46°02'29"N± 15" 61°27'57"W± 15"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1927, p. 164.

ADDITIONAL INFORMATION:

The well was drilled for structural information "on the property of Angus Cameron ..., 500 feet south of No. 4 hole"[1], NSDM Record No. 525 (P-33).

Well Identifier:	P-35
Well Name:	NSDM Record No. 527, Borehole No. 6
Company/Contractor:	Eastern Gulf Oil Company
Date Spudded:	November 13, 1926
Date Rig Released:	February 28, 1927
Rig Name/Type:	Diamond Drill No. 8 (NSDM)
Total Depth:	648 feet (197.5 m)
Location - Place:	Southwest Mabou, Inverness County (Fig. 8)
- NTS:	11K/03B
- Co-ordinates:	46°02'35"N± 10" 61°27'57"W± 10"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1927, p. 165.

ADDITIONAL INFORMATION:

The well was drilled for structural information "on the property of Angus J. McDonald ..., 250 feet due north from No. 2 hole"[1], NSDM Record No. 485 (P-29).

Well Identifier:	P-36
Well Name:	NSDM Record No. 528, Borehole No. 7
Company/Contractor:	Eastern Gulf Oil Company
Date Spudded:	March 6, 1927
Date Rig Released:	March 30, 1927
Rig Name/Type:	Diamond Drill No. 8 (NSDM)
Total Depth:	600 feet (182.9 m)
Location - Place:	Southwest Mabou, Inverness County (Fig. 8)
- NTS:	11K/03B
- Co-ordinates:	46°01'40"N± 15" 61°26'46"W± 15"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1927, p. 166.

ADDITIONAL INFORMATION:

The well was drilled for structural information "on the property of Andrew Campbell ..., 1,730 feet north from south west Mabou bridge; thence 1,850 feet east ..."[1].

Well Identifier:	P-37
Well Name:	NSDM Record No. 529, Borehole No. 8
Company/Contractor:	Eastern Gulf Oil Company
Date Spudded:	April 1, 1927
Date Rig Released:	April 26, 1927
Rig Name/Type:	Diamond Drill No. 8 (NSDM)
Total Depth:	664 feet (202.4 m)
Location - Place:	Southwest Mabou, Inverness County (Fig. 8)
- NTS:	11K/03B
- Co-ordinates:	42°02'39"N± 15" 61°27'57"W± 15"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1927, p. 167.

ADDITIONAL INFORMATION:

The well was drilled for structural information "on the property of Andrew Campbell ..., 500 feet due north from borehole No. 6"[1], NSDM Record No. 527, (P-35).

Well Identifier:	P-38
Well Name:	NSDM Record No. 530, Borehole No. 9
Company/Contractor:	Eastern Gulf Oil Company
Date Spudded:	May 5, 1927
Date Rig Released:	June 10, 1927
Rig Name/Type:	Diamond Drill No. 8 (NSDM)
Total Depth:	661 feet (201.5 m)
Location - Place:	Hillsboro Road, Inverness County (Fig. 8)
- NTS:	11K/03B
- Co-ordinates:	42°03'21"N± 30" 61°20'45"W± 15"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Grieve, R. O., Imperial Oil Ltd., Exploration Work on Licence No. 1, Map, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(04), 1956-1957. 2. Nova Scotia Department of Mines, Annual Report, 1927, p. 169.

ADDITIONAL INFORMATION:

The hole was drilled for structural information "on the property of Roland Smith ..., 600 feet south and 1,152 feet west of a brook crossing road in front of Ronald McDonald's house along Mull River, Hillsboro road"[2].

Well Identifier: P-39

Well Name: NSDM Record No. 531, Borehole No. 1

Company/Contractor: Eastern Gulf Oil Company

Date Spudded: June 11, 1927

Date Rig Released: June 24, 1927

Rig Name/Type: Diamond Drill No. 8 (NSDM)

Total Depth: 81 feet (24.7 m)

Location - Place: Margaree Harbour, Inverness County (Fig. 8)

- NTS: 11K/06D

- Co-ordinates: 46°24'50"N± 1"
61°06'15"W± 1"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference: 1. Nova Scotia Department of Mines, Annual Report, 1927, p. 170.

ADDITIONAL INFORMATION:

This hole was drilled for structural information "on the property of J. D. Monroe ..., 196 feet south of John McFarlane's house on the Margaree Harbour Road"[1].

Well Identifier:	P-40
Well Name:	NSDM Record No. 532, Borehole No. 2
Company/Contractor:	Eastern Gulf Oil Company
Date Spudded:	June 25, 1927
Date Rig Released:	August 4, 1927
Rig Name/Type:	Diamond Drill No. 8 (NSDM)
Total Depth:	712 feet (217.0 m)
Location - Place:	Margaree Harbour, Inverness County (Fig. 8)
- NTS:	11K/06D
- Co-ordinates:	46°24'48"N± 1" 61°06'15"W± 1"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1929, p. 170.

ADDITIONAL INFORMATION:

This hole was drilled for structural information "on the property of John McFarlane ..., 67 feet in the rear of J. McFarlane's barn on the Margaree Harbour Road"[1], Inverness County.

Well Identifier: P-41

Well Name: NSDM Record No. 533, Borehole No. 3

Company/Contractor: Eastern Gulf Oil Company

Date Spudded: August 5, 1927

Date Rig Released: August 29, 1927

Rig Name/Type: Diamond Drill No. 8 (NSDM)

Total Depth: 189 feet (57.6 m)

Location - Place: Margaree Harbour, Inverness County (Fig. 8)

- NTS: 11K/06D

- Co-ordinates: 46°24'46"N± 1"
61°06'15"W± 1"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference: 1. Nova Scotia Department of Mines, Annual Report, 1927, p. 172.

ADDITIONAL INFORMATION:

The hole was drilled for structural information "on the property of John McLellan ..., 1,840 feet south 340 feet west of No. 2 borehole"[1], NSDM Record No. 532 (P-40).

Well Identifier:	P-42
Well Name:	NSDM Record No. 534, Borehole No. 4
Company/Contractor:	Eastern Gulf Oil Company
Date Spudded:	August 30, 1927
Date Rig Released:	September 14, 1927
Rig Name/Type:	Diamond Drill No. 8 (NSDM)
Total Depth:	210 feet (64.0 m)
Location - Place:	Margaree Harbour, Inverness County (Fig. 8)
- NTS:	11K/06D
- Co-ordinates:	46°24'44"N± 1" 61°06'15"W± 1"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1927, p. 172.

ADDITIONAL INFORMATION:

The hole was drilled for structural information "on the property of John McLellan ..., 13 feet southeast of No. 3 borehole"[1], NSDM Record No. 533 (P-41).

Well Identifier: P-43

Well Name: NSDM Record No. 535, Borehole No. 5

Company/Contractor: Eastern Gulf Oil Company

Date Spudded: September 15, 1927

Date Rig Released: October 7, 1927

Rig Name/Type: Diamond Drill No. 8 (NSDM)

Total Depth: 360 feet (109.7 m)

Location - Place: Belle Côte, Inverness County (Fig. 8)

- NTS: 11K/06D

- Co-ordinates: 46°25'35"N± 30"
61°05'04"W± 40"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference: 1. Nova Scotia Department of Mines, Annual Report, 1927, p. 173.

ADDITIONAL INFORMATION:

The hole was drilled for structural information "on the property of Placid Chiasson ... on the seventh lot southerly from the bridge crossing the (Margaree) Harbour and 35 feet from the waters edge"[1] at Belle Côte.

Well Identifier: P-44

Well Name: Nappan No. 1

Company/Contractor: Imperial Oil Limited

Date Spudded: November 1927

Date Rig Released: December 1927

Rig Name/Type: Unknown

Total Depth: 673 feet (205.1 m)

Location - Place: Nappan, Cumberland County (Fig. 6)

- NTS: 21H/16A

- Co-ordinates: 45°46'05"N± 10"
64°13'42"W± 21"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Miscellaneous Memo, Nova Scotia Department of Mines and Energy, Assessment Report 21H/16A 39-E-21(00), 1947.
2. Nova Scotia Department of Mines, Annual Report, 1931, Part II, p. 24.

ADDITIONAL INFORMATION:

The original hole was drilled to 370 feet (112.8 m) when a 3-inch (7.6 cm) casing string was dropped in the hole. "An attempt to fish these out was unsuccessful and the derrick was skidded a few feet and the hole commenced over again"[2]. At a depth of 673 feet (205.1 m), it was deemed inadvisable to drill further due to caving hole conditions.

The well was drilled for oil. Nothing but soft red to chocolate shales were encountered[2].

Well Identifier: P-45

Well Name: Nappan No. 2

Company/Contractor: Imperial Oil Limited

Date Spudded: November 1927

Date Rig Released: December 1927

Rig Name/Type: Unknown

Total Depth: 159 feet (48.5 m)

Location - Place: Nappan, Cumberland County (Fig. 6)

- NTS: 21H/16A

- Co-ordinates: 45°46'27"N± 10"
64°13'52"W± 15"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Miscellaneous Memo, Nova Scotia Department of Mines and Energy, Assessment Report 21H/16A 39-E-21(00), 1947.
2. Nova Scotia Department of Mines, Annual Report, 1931, Part II, p. 24.

ADDITIONAL INFORMATION:

The well drilled for oil was "abandoned due to lost circulation and to trouble carrying the pipe deeper. The formation drilled through was chiefly gypsum with bands of mud"[2].

Well Identifier:	P-46
Well Name:	Nappan No. 3
Company/Contractor:	Imperial Oil Limited
Date Spudded:	December 1927
Date Rig Released:	January 1928
Rig Name/Type:	Unknown
Total Depth:	210 feet (54.0 m)
Location - Place:	Nappan, Cumberland County (Fig. 6)
- NTS:	21H/16A
- Co-ordinates:	45°46'18"N± 8" 64°13'41"W± 20"
Lithologic Log:	Not on file.
Mechanical Logs:	Not on file.
Reference:	1. Miscellaneous Memo, Nova Scotia Department of Mines and Energy, Assessment Report 21H/16A 39-E-21(00), 1947. 2. Nova Scotia Department of Mines, Annual Report, 1931, Part II, p. 24.

ADDITIONAL INFORMATION:

This well was drilled for oil.

Well Identifier: P-47

Well Name: Nappan No. 4

Company/Contractor: Imperial Oil Limited

Date Spudded: Approximately 1928-29

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 795 feet (242.3 m)

Location - Place: Nappan, Cumberland County (Fig. 6)

- NTS: 21H/16A

- Co-ordinates: 45°46'51"N± 11"
64°14'08"W± 20"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Miscellaneous Memo, Nova Scotia Department of Mines and Energy, Assessment Report 21H/16A 39-E-21(00), 1947.
2. Nova Scotia Department of Mines, Annual Report, 1931, Part II, p. 24.

ADDITIONAL INFORMATION:

This well was drilled for oil.

Well Identifier: P-48

Well Name: Nappan No. 5

Company/Contractor: Imperial Oil Limited

Date Spudded: Approximately 1928-29

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 795 feet (242.3 m)

Location - Place: Nappan, Cumberland County (Fig. 6)

- NTS: 21H/16A

- Co-ordinates: 45°47'00"N± 18"
64°11'24"W± 10"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Miscellaneous Memo, Nova Scotia Department of Mines and Energy, Assessment Report 21H/16A 39-E-21(00), 1947.
2. Nova Scotia Department of Mines, Annual Report, 1931, Part II, p. 24.

ADDITIONAL INFORMATION:

This well was drilled for oil.

Well Identifier: P-49

Well Name: Nappan No. 6

Company/Contractor: Imperial Oil Limited

Date Spudded: Approximately 1928-29

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 298 feet (90.8 m)

Location - Place: Nappan, Cumberland County (Fig. 6)

- NTS: 21H/16A

- Co-ordinates: 45°47'00"N± 12"
64°11'24"W± 20"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Miscellaneous Memo, Nova Scotia Department of Mines and Energy, Assessment Report 21H/16A 39-E-21(00), 1947.
2. Nova Scotia Department of Mines, Annual Report, 1931, Part II, p. 24.

ADDITIONAL INFORMATION:

This well was drilled for oil.

Well Identifier: P-50

Well Name: NSDM Record No. 710, Nappan No. 7,
Borehole No. 1

Company/Contractor: Imperial Oil Limited

Date Spudded: September 9, 1929

Date Rig Released: October 15, 1929

Rig Name/Type: Diamond Drill No. 8 (NSDM)

Total Depth: 432 feet (131.7 m)

Location - Place: Amherst, Cumberland County (Fig. 6)

- NTS: 21H/16A

- Co-ordinates: 45°47'48"N± 13"
64°13'24"W± 20"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Miscellaneous Memo, Nova Scotia Department of Mines and Energy, Assessment Report 21H/16A 39-E-21(00), 1947.
2. Nova Scotia Department of Mines, Annual Report, 1929, p. 156.
3. Nova Scotia Department of Mines, Annual Report, 1931, Part II, map.

ADDITIONAL INFORMATION:

Oil was sought "on the property of W. A. Fillmore, 1,200 feet southwest of Blairs Lake and about one mile northwest of house belonging to Fred Noiles"[2].

Well Identifier: P-51

Well Name: Nappan No. 8

Company/Contractor: Imperial Oil Limited

Date Spudded: Approximately 1929

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 340 feet (103.6 m)

Location - Place: Nappan, Cumberland County (Fig. 6)

- NTS: 21H/16A

- Co-ordinates: 45°47'20"N± 17"
64°13'21"W± 12"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Miscellaneous Memo, Nova Scotia Department of Mines and Energy, Assessment Report 21H/16A 39-E-21(00), 1947.
2. Nova Scotia Department of Mines, Annual Report, 1931, Part II, map.

ADDITIONAL INFORMATION:

The well was drilled for oil.

Well Identifier: P-52

Well Name: NSDM Record No. 720, Nappan No. 9, Borehole No. 2

Company/Contractor: Imperial Oil Limited

Date Spudded: October 31, 1929

Date Rig Released: December 2, 1929

Rig Name/Type: Diamond Drill No. 8

Total Depth: 740 feet (225.6 m)

Location - Place: Amherst, Cumberland County (Fig. 6)

- NTS: 21H/16A

- Co-ordinates: 45°47'55"N± 10"
64°12'14"W± 10"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Miscellaneous Memo, Nova Scotia Department of Mines and Energy, Assessment Report 21H/16A 39-E-21(00), 1947.
2. Nova Scotia Department of Mines, Annual Report, 1930, p. 166-167.
3. Nova Scotia Department of Mines, Annual Report, 1931, Part II, map.

ADDITIONAL INFORMATION:

Oil was sought "on the property of Dr. Millar ..., about 1,000 feet west off Noiles Road and 300 feet east of Dr. Millar's cottage, 50 feet from Blair's Lake"[2].

Well Identifier: P-53

Well Name: Nappan No. 10

Company/Contractor: Imperial Oil Limited

Date Spudded: Approximately 1929-30

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 316 feet (96.3 m)

Location - Place: Nappan, Cumberland County (Fig. 6)

- NTS: 21H/16A

- Co-ordinates: 45°48'00"N± 12"
64°13'21"W± 10"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference:

1. Miscellaneous Memo, Nova Scotia Department of Mines and Energy, Assessment Report 21H/16A 39-E-21(00), 1947.

2. Nova Scotia Department of Mines, Annual Report, 1931, Part II, map.

ADDITIONAL INFORMATION:

The well was drilled for oil.

Well Identifier: P-54

Well Name: Scotsburn No. 1

Company/Contractor: Imperial Oil Limited

Date Spudded: September 9, 1930

Date Rig Released: January 3, 1931

Rig Name/Type: Unknown

Total Depth: 1,980 feet (603.5 m)

Location - Place: Scotsburn, Pictou County (Fig. 7)

- NTS: 11E/11D

- Co-ordinates: 45°37'52"N± 35"
64°00'13"W± 40"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Nova Scotia Department of Mines, Annual Report, 1931, Part II.
2. West, D. M., Preliminary Report on the Scotsburn Area, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 11E/10C 39-M-27(01), 1944.

ADDITIONAL INFORMATION:

The well, drilled for oil, was located "near the apex of the Scotsburn anticline"[2]. Operations were halted due to difficult drilling and the "prevalence of volcanic rocks"[2]. Limestone containing a small amount of oil was intersected at 830 feet (253.0 m).

Well Identifier: P-55

Well Name: Amherst No. 1

Company/Contractor: Imperial Oil Limited

Date Spudded: March 9, 1931

Date Rig Released: July 27, 1931

Rig Name/Type: Unknown

Total Depth: 4,134 feet (1260.0 m)

Location - Place: Amherst, Cumberland County (Fig. 6)

- NTS: 21H/16A

- Co-ordinates: 45°47'12"N± 8"
64°13'23"W± 6"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference: 1. Nova Scotia Department of Mines, Annual Report, 1931, Part II, p. 47, 64-65, 67-90, maps.

ADDITIONAL INFORMATION:

"Some gypsum and selenite containing vugs or cavities of dark viscous crude petroleum"[1] were encountered from 1,190 feet (362.7 m) to 1,200 feet (365.8 m).

Well Identifier: P-56

Well Name: McIsaac Gas Well, Well No. 5

Company/Contractor: Unknown

Date Spudded: Around 1938

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 1,700 feet (518.2 m)

Location - Place: Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03A

- Co-ordinates: 46°05'42"N± 20"
61°11'48"W± 20"

Lithologic Log: Partial log summary on file.

Mechanical Logs: Not on file.

Reference: 1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Ainslie Basin, Inverness County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(06), 1914-1958, p. 20, map.

ADDITIONAL INFORMATION:

The well, drilled for oil, was located "at McIsaacs Point, about three-quarters of a mile northwest of Black Rock"[1]. A partial log summary shows a "gas and salt water sandstone"[1] of unknown thickness at 400 feet (122 m).

Four other wells listed with this well in the above reference, in an extract from a report by Theodore Link, were not included in this compilation because of a lack of information including data regarding locations and the purpose of drilling these wells. The library search for Theodore Link's report was unsuccessful.

Well Identifier: P-57

Well Name: Mac No. 1

Company/Contractor: Lion Oil Refining Company (from Eldorado, Arkansas)

Date Spudded: 1944

Date Rig Released: Unknown

Rig Name/Type: Rotary

Total Depth: 5,579 feet (1701.0 m)

Location - Place: Soutnwest Mabou, Inverness County (Figs. 8, 13, 14, 15)

- NTS: 11K/03B

- Co-ordinates: 46°01'49"N± 10"
61°27'37"W± 15"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Bell, W. A., Possibilities for Occurrence of Petroleum Reservoirs in Nova Scotia, Nova Scotia Department of Mines, 1958.
2. Heiland Exploration Company, Seismograph Surveys Report, Mabou, Inverness County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03B 39-J-35(03), 1942, map.
3. MacNeil, D. J., Lion Oil Refining Company, Oil Prospects Reports and Maps, Inverness County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(03), 1945, graphic log.
4. MacNeil, D. J., Lion Oil Refining Company, Petroleum Possibilities, Mabou Inverness County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03B 39-J-35(08), 1948, map.
5. MacNeil, D. J., Lion Oil Refining Company, Petroleum Progress Report, Mabou, Inverness County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-35(05), 1944, p. 1-20.

P-57 ADDITIONAL INFORMATION: (cont'd)

During the summer of 1944, the Lion Oil Refining Company drilled two deep holes at Southwest Mabou and concurrent with these, conducted geological and geophysical investigations (gravity, seismic) in a search for oil[5]. "The first well, Mac No. 1, was drilled close to the contact of the Mabou and Windsor Groups. It struck salt at depth of 1,400 feet and was discontinued at 5,579 feet without penetrating the whole of the evaporite zone"[1].

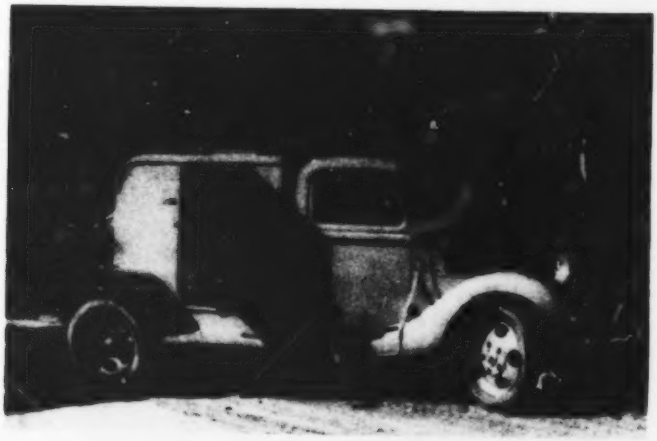

Figure 13. Seismic recording truck, operated by Heiland Exploration Company for Cape Breton Petroleum Company at Mabou, Inverness County, 1942.

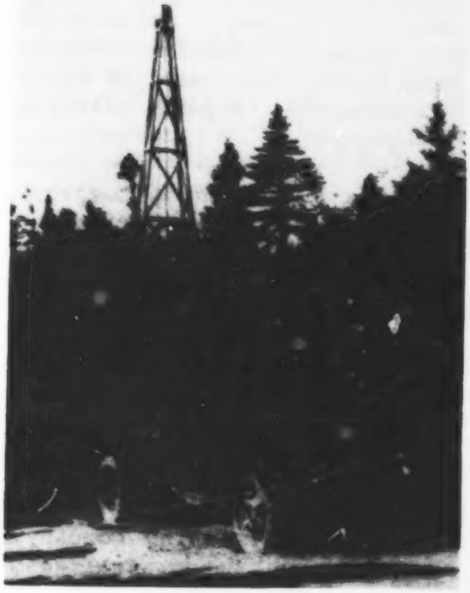

Figure 14. Seismic shot hole drill rig, operated by Heiland Exploration Company for Cape Breton Petroleum Company at Mabou, Inverness County, 1942.

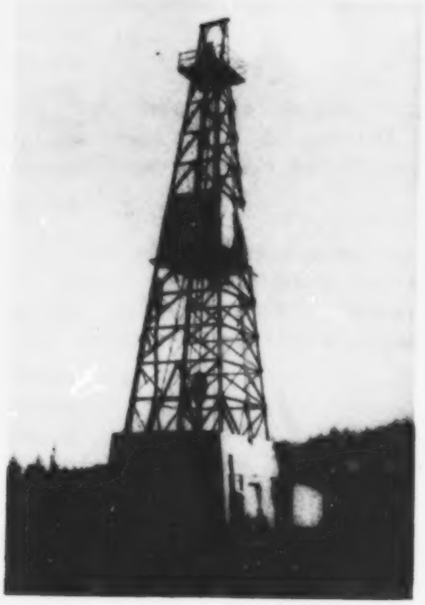

Figure 15. Petroleum exploration drilling by Lion Oil Refining Company at Mabou, Inverness County, 1944, Mac No. 1 or Mary No. 1.

Well Identifier: P-58

Well Name: Mary No. 1

Company/Contractor: Lion Oil Refining Company (from Eldorado, Arkansas)

Date Spudded: 1944

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 6,869 feet (2094.0 m)

Location - Place: Southwest Mabou, Inverness County (Fig. 8)

- NTS: 11K/03B

- Co-ordinates: 46°02'06"N± 15"
61°28'06"W± 22"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Bell, W. A., Possibilities for Occurrence of Petroleum Reservoirs in Nova Scotia, Nova Scotia Department of Mines, 1958.
2. Heiland Exploration Company, Seismograph Surveys Report, Mabou, Inverness County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03B 39-J-35(03), 1942, map.
3. MacNeil, D. J., Lion Oil Refining Company, Petroleum Progress Report, Mabou, Inverness County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-35(05), 1944, p. 1-3.
4. Nova Scotia Department of Mines, Annual Report, 1956, p. 129-141.

ADDITIONAL INFORMATION:

See P-57.

Drilling operations at Mabou ceased with the completion of Mary No. 1. Stratigraphic sections proved to be much thicker than indicated by the geological and geophysical surveys, and the drill capacity was not sufficient to reach the possible oil horizons[1,3]. Further efforts were

P-58 ADDITIONAL INFORMATION: (cont'd)

to have been made when equipment of greater capacity became available, but a literature search indicates no further drilling occurred in the area by Lion Oil Refining Company.

Well Identifier: P-59

Well Name: Anthony No. 1

Company/Contractor: Nova Scotia Oil and Gas Company (of Halifax)

Date Spudded: 1944

Date Rig Released: 1944-45

Rig Name/Type: Cable tool

Total Depth: 638 feet (194.0 m)

Location - Place: Kennetcook, Hants County (Fig. 6)

- NTS: 11E/04D

- Co-ordinates: 45°10'39"N± 20"
63°43'54"W± 32"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Kodyen, E. A., Nova Scotia Oil and Gas Company, DDH Logs, Kennetcook, Hants County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 11E/04D 39-I-17(01), 1945.
2. MacNeil, D. J., Eastern-Northern Explorations Limited, Petroleum Possibilities Report, Antigonish Harbour, Antigonish County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 11F/12C 39-B-05(03), 1955-1956, p. 6-7.
3. MacNeil, D. J., Geological Report on Oil and Gas Possibilities, Antigonish Area, Antigonish County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 11F/12W 39-B-04(02), 1952.

ADDITIONAL INFORMATION:

Late in 1944 a cable tool drilling rig, sponsored by Canadian and Nova Scotia capital, spudded Anthony No. 1. The hole was located "2,400 feet west of Noel Road on Branch Road about one-half mile northwest of the town of Kennetcook, Hants Co"[1].

The well was proposed as a 3,000-foot (914 m) test, but bottomed at 638 feet (194 m) due to mechanical difficulties. No hydrocarbon shows were reported[1,3].

Well Identifier: P-60

Well Name: Anthony No. 2

Company/Contractor: Nova Scotia Oil and Gas Company (of Halifax)

Date Spudded: 1945

Date Rig Released: Spring 1945

Rig Name/Type: Cable tool

Total Depth: 870 feet (265.2 m)

Location - Place: Kennetcook, Hants County (Fig. 6)

- NTS: 11E/04D

- Co-ordinates: 45°10'40"N± 20"
63°43'54"W± 30"

Lithologic Log: On file.

Mechanical Logs: Not on file

Reference:

1. Kodyen, E. A., Nova Scotia Oil and Gas Company, DDH Logs, Kennetcook, Hants County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 11E/04D 39-I-17(01), 1945.
2. MacNeil, D. J., Eastern-Northern Explorations Limited, Petroleum Possibilities Report, Antigonish Harbour, Antigonish County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 11F/12C 39-B-05(03), 1955-1956, p. 6-7.
3. MacNeil, D. J., Geological Report on Oil and Gas Possibilities, Antigonish Area, Antigonish County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 11F/12W 39-B-04(02), 1952.

ADDITIONAL INFORMATION:

The well was located "a few feet north of Anthony No. 1 which was 2,400 feet west of Noel Road on Branch Road about one-half mile northwest of the town of Kennetcook, Hants Co."[1]. This well was abandoned due to mechanical difficulties as was Anthony No. 1. The well was reported to have reached total depth within the Cheverie Formation"[2].

Well Identifier: P-61

Well Name: Sunoco No. 1

Company/Contractor: Sun Oil Company of Philadelphia

Date Spudded: Spring 1945

Date Rig Released: Around end of November 1945

Rig Name/Type: Rotary (15,000 feet capacity)

Total Depth: 6,499 feet (1981 m)

Location - Place: Nappan, Cumberland County (Fig. 6)

- NTS: 21H/16A

- Co-ordinates: 45°47'05"N± 10"
64°13'39"W± 15"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Cormier, R. F., Petroleum Prospects of the Cumberland Area, Northern Nova Scotia, 1959, Nova Scotia Department of Mines and Energy, Open File Report 234.

2. Miscellaneous Memo, Nappan, Cumberland County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 21H/16A 39-E-21(00), 1947.

3. Sun Oil Company Limited, DDH Log and Letter, Nappan, Cumberland County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 21H/16A 39-E-21(02), 1947.

ADDITIONAL INFORMATION:

This well, drilled for oil, was located "south of Amherst, 2,000 feet east, along Smith Road from the CNR intersection at Pugsley's Siding, then 800 feet due north"[2].

Brittle asphalt (albertite?) and asphaltic stained sandstone was encountered at various zones below 6,329 feet (1929 m)[3].

The well was abandoned at 6,499 feet (1981 m) due to the "inability to remove from the hole drilling equipment ..."[3].

Well Identifier: P-62

Well Name: Sunoco No. 1A (Nappan No. 1A)

Company/Contractor: Sun Oil Company

Date Spudded: April 15, 1946

Date Rig Released: September 1, 1947 (proposed)

Rig Name/Type: Rotary (15,000 feet capacity)

Total Depth: 11,504 feet (3506 m)

Location - Place: Amherst, Cumberland County (Fig. 6)

- NTS: 21H/16A

- Co-ordinates: 45°47'05"N± 10"
64°13'39"W± 15"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Miscellaneous Memo, Nappan, Cumberland County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 21H/16A 39-E-21(00), 1947.
2. Sun Oil Company Ltd., Diamond-Drill Hole Log - Sunoco No. 1, DDH Log and Letter, Nappan, Cumberland County, Nova Scotia, Nova Scotia Department of Mines and Energy, Assessment Report 21H/16A 39-E-21(01), 1945.

ADDITIONAL INFORMATION:

This well was drilled for oil, 75 feet (23 m) away from Sunoco No. 1 (P-61). The following petroleum occurrences were noted on the lithologic log below 6,335 feet (1931 m): dolomitic and calcareous sandstone with albertite, asphaltic siltstones and sandstones, and shales with asphaltic inclusions[2].

Well Identifier: P-63

Well Name: NSDM Record No. 1171, Borehole No. 1

Company/Contractor: Pictou Petroleum Company

Date Spudded: May 16, 1946) dates
) include
Date Rig Released: July 16, 1946) P-63 and P-64

Rig Name/Type: Diamond Drill No. 6 (NSDM)

Total Depth: 645 feet (197 m)

Location - Place: Mount William, Pictou County (Fig. 7)

- NTS: 11E/10A

- Co-ordinates: 45°35'30"N± 25"
62°30'12"W± 35"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference: 1. Nova Scotia Department of Mines, Annual Report, 1946, p. 107.

ADDITIONAL INFORMATION:

The well, one of two drilled for structural information, was "located 386 feet north 64°12' west from the southwest corner of a barn owned by Walter Walters ..."[1].

Well Identifier: P-64

Well Name: NSDM Record No. 1172, Borehole No. 2

Company/Contractor: Pictou Petroleum Company

Date Spudded: May 16, 1946) dates
) include

Date Rig Released: July 16, 1946) P-63 and P-64

Rig Name/Type: Diamond Drill No. 6 (NSDM)

Total Depth: 36.5 feet (11.1 m)

Location - Place: Mount William, Pictou County (Fig. 7)

- NTS: 11E/10A

- Co-ordinates: 45°35'25"N± 25"
62°30'15"W± 35"

Lithologic Log: Not on file.

Mechanical Logs: Not on file.

Reference: 1. Nova Scotia Department of Mines, Annual Report, 1946, p. 107-108.

ADDITIONAL INFORMATION:

The well, one of two drilled for structural information, was "located 878 feet south 16°23' west of borehole No. 1 ..."[1] (P-63).

Well Identifier: P-65

Well Name: NSDM Record No. 1096, Borehole No. 1

Company/Contractor: Sydney Petroleum Company

Date Spudded: September 1, 1946) dates
) include P-65,
Date Rig Released: October 24, 1946) P-66 and P-67

Rig Name/Type: Diamond Drill No. 3 (NSDM)

Total Depth: 253 feet (77 m)

Location - Place: Birch Grove, Cape Breton County (Fig. 9)

- NTS: 11K/01D

- Co-ordinates: 46°07'55"N± 6"
62°00'18"W± 9"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Nova Scotia Department of Mines, Annual Report, 1946, p. 89-90.
2. Nova Scotia Research Foundation, Report of Geophysical Exploration and Maps, Glace Bay, Cape Breton County, Nova Scotia, for Thomas Jordon Inc., Nova Scotia Department of Mines and Energy, Assessment Report 11J/04C 39-C-49(01), 1957.

ADDITIONAL INFORMATION:

The borehole, drilled for structural information, was located "33 feet north of Hines Road at a point 1,300 feet west of the intersection of Hines Road and old railroad"[1].

Well Identifier:	P-66
Well Name:	NSDM Record No. 1097, Borehole No. 2
Company/Contractor:	Sydney Petroleum Company
Date Spudded:	September 1, 1946) dates) include P-65,
Date Rig Released:	October 24, 1946) P-66 and P-67
Rig Name/Type:	Diamond Drill No. 3 (NSDM)
Total Depth:	233 feet (71 m)
Location - Place:	Birch Grove, Cape Breton County (Fig. 9)
- NTS:	11J/04C
- Co-ordinates:	46°08'12"N± 15" 59°59'58"W± 18"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1946, p. 89-91. 2. Nova Scotia Research Foundation, Report of Geophysical Exploration and Maps, Glace Bay, Cape Breton County, Nova Scotia, for Thomas Jordon Inc., Nova Scotia Department of Mines and Energy, Assessment Report 11J/04C 39-C-49(01), 1957.

ADDITIONAL INFORMATION:

The hole, drilled for structural information, was located "one-half mile east along Old Hines Road from Borehole No. 1 thence north one-quarter mile ..."[1].

Well Identifier: P-67

Well Name: NSDM Record No. 1098, Borehole No. 3

Company/Contractor: Sydney Petroleum Company

Date Spudded: September 1, 1946) dates
) inlcude P-65,
Date Rig Released: October 24, 1946) P-66 and P-67

Rig Name/Type: Diamond Drill No. 3 (NSDM)

Total Depth: 81 feet (25 m)

Location - Place: Birch Grove, Cape Breton County (Fig. 9)

- NTS: 11K/01A

- Co-ordinates: 46°07'06"N± 8"
60°01'55"W± 10"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference: 1. Nova Scotia Department of Mines, Annual Report, 1946, p. 89-91.

ADDITIONAL INFORMATION:

The borehole was drilled for structural information and was located "15 feet south of Cow Bay Road at a point 690 feet west of the intersection of Old Hines Road"[1].

Well Identifier: P-68

Well Name: NSDM Record No. 1235

Company/Contractor: Little Narrows Petroleum Company

Date Spudded: November 26, 1946) dates
) include
Date Rig Released: July 8, 1947) P-68 and P-69

Rig Name/Type: Diamond Drill No. 3

Total Depth: 327 feet (99.7 m)

Location - Place: Little Narrows, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°58'29"N± 5"
60°56'50"W± 10"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Isenor, G. P., Amax Exploration Inc., Texasgulf Canada Ltd., Texam Joint Venture Project 585, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(02), 1976.
2. Lebel, L. and Roth, J., Amax Mineral Exploration and Texasgulf IP-Resistivity Survey, Iona Rear, Victoria County, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(01), 1977.
3. Nova Scotia Department of Mines, Annual Report, 1947, p. 77.

ADDITIONAL INFORMATION:

See also P-69 and P-70.

The well was drilled for structural information because of petroleum evidence found during surface exploration. The location was "100 feet south of the house of Murdock F. MacLeod"[3].

At 272 feet (82.9 m) "partings of a black gummy substance" were encountered in red conglomerate[3].

Note: The three wells (P-68, P-69, and P-70) have been, through the years, interchangeably termed Borehole No. 1 and No. 2.

Well Identifier: P-69

Well Name: NSDM Record No. 1236, Little Narrows No. 1

Company/Contractor: Little Narrows Petroleum Company

Date Spudded: November 26, 1946) dates
) include
Date Rig Released: July 8, 1947) P-68 and P-69

Rig Name/Type: Diamond Drill No. 3

Total Depth: 1,614 feet (492.0 m)

Location - Place: Little Narrows, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°58'29"N± 5"
60°56'50"W± 10"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Isenor, G. P., Amax Exploration Inc., Texasgulf Canada Ltd., Texam Joint Venture Project 585, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(02), 1976.

2. Lebel, L. and Roth, J., Amax Mineral Exploration and Texasgulf IP-Resistivity Survey, Iona Rear, Victoria County, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(01), 1977.

3. Nova Scotia Department of Mines, Annual Report, 1947, p. 77.

ADDITIONAL INFORMATION:

See also P-68 and P-70.

The well, drilled for structural information, was located in the Jubilee District "3.0 feet south of borehole No. 1"[3], NSDM Record No. 1235 (P-68).

Two to three feet (0.6 - 0.9 m) of bitumen were intersected at 297.0 feet (90.5 m).

Note: The three wells (P-68, P-69 and P-70) have been, through the years, interchangeably termed Borehole No. 1 and No. 2.

Well Identifier: P-70

Well Name: NSDM Record No. 1452, No. 2

Company/Contractor: Little Narrows Petroleum Company

Date Spudded: October 27, 1947

Date Rig Released: April 22, 1948

Rig Name/Type: Diamond Drill No. 6 (NSDM)

Total Depth: 2,004 feet (610.8 m)

Location - Place: Little Narrows, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°58'56"N± 5"
60°56'45"W± 10"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. MacNeil, D. J., Little Narrows Petroleum Company, Activity Report, Nova Scotia Department Mines and Energy, Assessment Report 11F/15C 39-Q-11(01), 1949.

2. Nova Scotia Department of Mines, Annual Report, 1948, p. 67, 100.

ADDITIONAL INFORMATION:

See also P-68 and P-69.

The well was drilled for structural information and located "83 feet east of the school house at Jubilee ..."[2]. "A faint show of fluid oil at 421 ft. ..." and "some asphaltic material at 422 feet"[1] was encountered. Also intersected was some "asphaltic material in spots between 511 and 512 feet"[1].

Note: The three wells (P-68, P-69, and P-70) have been, through the years, interchangeably termed Borehole No. 1 and No. 2.

Well Identifier: P-71

Well Name: NSDM Record No. 1453, Hay River Drill Hole

Company/Contractor: Little Narrows Petroleum Company

Date Spudded: August 9, 1948

Date Rig Released: September 30, 1948

Rig Name/Type: Diamond Drill No. 6 (NSDM)

Total Depth: 694 feet (211.5 m)

Location - Place: West Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03A

- Co-ordinates: 46°05'49"N± 8"
61°14'53"W± 10"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Lake Ainslie Basin, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(06), 1914-1958.

2. MacNeil, D. J., Progress Report on the Search for Petroleum in Nova Scotia, conducted by H. M. Channing and Associates, November 1949, Nova Scotia Department of Mines and Energy, Open File Report 231.

3. Nova Scotia Department of Mines, Annual Report, 1948, p. 67, 100.

ADDITIONAL INFORMATION:

The well was drilled for structural information and located "428 feet from the northwest corner of the barn on the property of D. M. L. MacKinnon at Hays River"[1].

Well Identifier: P-72

Well Name: NSDM Record No. 1505

Company/Contractor: Nova Scotia Centre for Geological Science

Date Spudded: July 13, 1949

Date Rig Released: September 19, 1949

Rig Name/Type: Unknown

Total Depth: 712 feet (217.0 m)

Location - Place: Big Marsh, Antigonish County (Fig. 7)

- NTS: 11E/09D

- Co-ordinates: 45°44'17"N± 30"
62°01'05"W± 45"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. MacNeil, D. J., Little Narrows Petroleum Company, Activity Report, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 39-Q-11(01), 1949.
2. MacNeil, D. J., Progress Report on the Search for Petroleum in Nova Scotia, conducted by H. M. Channing and Associates, November 1949, Nova Scotia Department of Mines and Energy, Open File Report 231.
3. Nova Scotia Department of Mines, Annual Report, 1949, p. 76.

ADDITIONAL INFORMATION:

The well was located "605 feet east of the south corner of Big Marsh School ... The Nova Scotia Department of Mines, in co-operation with the Nova Scotia Centre for Geological Sciences, drilled a 712-foot bore-hole ..."[2].

Well Identifier: P-73

Well Name: Anthony No. 3

Company/Contractor: Nova Scotia Oil and Gas Company

Date Spudded: 1951

Date Rig Released: 1951

Rig Name/Type: Unknown

Total Depth: 2,588 feet (788.8 m)

Location - Place: Kennetcook, Hants County (Fig. 6)

- NTS: 11E/04D

- Co-ordinates: 45°10'42"N± 20"
63°43'54"W± 30"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. MacNeil, D. J., Geological Report on Oil and Gas Possibilities, Antigonish Area, Antigonish County, Nova Scotia Department of Mines and Energy, Assessment Report 11F/12W 39-B-04(02), 1952.
2. Nova Scotia Department of Mines, Annual Report, 1956, p. 169-172.

ADDITIONAL INFORMATION:

The well, drilled for oil, is reported to have flowed a small amount of gas which was believed to have entered the hole somewhere below 1,000 feet (304.8 m)[1].

Well Identifier:	P-74
Well Name:	Inverness No. 1
Company/Contractor:	Imperial Oil Ltd., drilling by Seismograph Service Corporation
Date Spudded:	August 26, 1958) dates) include
Date Rig Released:	September 10, 1958) P-74 to P-79
Rig Name/Type:	Mayhew 1000 shot hole rig
Total Depth:	510 feet (155.5 m)
Location - Place:	Mabou, Inverness County (Fig. 8)
- NTS:	11K/03B
- Co-ordinates:	46°03'42"N± 10" 61°23'48"W± 15"
Lithologic Log:	On file, by R. Cote, May 15, 1959.
Mechanical Logs:	Not on file.
Reference:	1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Ainslie Basin, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(06), 1914-1958.

ADDITIONAL INFORMATION:

Six shallow test holes were drilled (Inverness 1 to 6) in the Mabou-Lake Ainslie area between August 26 and September 10, 1958, for structural and stratigraphic data related to petroleum exploration.

Inverness No. 1 was a Windsor test on what appeared to be a Windsor high. A water influx and rig limitations led to the final total depth of 510 feet (155.5 m)[1].

Inverness No. 1 was located "2,100 feet south along the first gravel road, branching southeast from Highway 19 south of Mabou Village"[1].

Well Identifier: P-75

Well Name: Inverness No. 2

Company/Contractor: Imperial Oil Ltd., Drilling by Seismograph Service Corporation.

Date Spudded: August 26, 1958) dates
) include
Date Rig Released: September 10, 1958) P-74 to P-79

Rig Name/Type: Mayhew 1000 shot hole rig

Total Depth: 260 feet (79.3 m)

Location - Place: Mabou, Inverness County (Fig. 8)

- NTS: 11K/03B

- Co-ordinates: 46°02'06"N± 12"
61°22'35"W± 17"

Lithologic Log: On file, by G. Drapeau, May 27, 1959.

Mechanical Logs: Not on file.

Reference: 1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Ainslie Basin, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(06), 1914-1958.

ADDITIONAL INFORMATION:

The well was drilled as "a Horton test on the west flank of the Mull River Anticline ... A faint oil scum formed on the mud pit at a depth of 210 feet to 220 feet"[1].

Well Identifier: P-76

Well Name: Inverness No. 3

Company/Contractor: Imperial Oil Ltd., Drilling by Seismograph Service Corporation

Date Spudded: August 26, 1958) dates
) include
Date Rig Released: September 10, 1958) P-74 to P-79

Rig Name/Type: Mayhew 1000 shot hole rig

Total Depth: 480 feet (146.3 m)

Location - Place: Western side of Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03A

- Co-ordinates: 46°06'54"N± 10"
61°11'46"W± 12"

Lithologic Log: On file, log dated November 28, 1958.

Mechanical Logs: Not on file.

Reference: 1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Ainslie Basin, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(06), 1914-1958.

ADDITIONAL INFORMATION:

The well was drilled as "a Horton test"[1]. Good oil shows were encountered at 246 feet (75.0 m) and 450 feet (137.2 m). From 246 feet (75.0 m) to approximately 330 feet (100.6 m) "splotches of oil"[1] were observed in the drilling mud and a few of the sands showed slight oil staining. At a depth of 450 feet (137.2 m) "black frothy oil"[1] mixed with the drilling mud filled the mud pits. Samples sent for anlaysis yielded 0.20% and 0.21% oil by weight, although the gasoline fraction that might have been present could have been lost due to the testing methods used[1].

The hole was abandoned due to the drillstem twisting off.

Well Identifier:	P-77
Well Name:	Inverness No. 4
Company/Contractor:	Imperial Oil Ltd., Drilling by Seismograph Service Corporation
Date Spudded:	August 26, 1958) dates) include
Date Rig Released:	September 10, 1958) P-74 to P-79
Rig Name/Type:	Mayhew 1000 shot hole rig
Total Depth:	470 feet (143.3 m)
Location - Place:	Judique North, Inverness County (Fig. 8)
- NTS:	11F/14C
- Co-ordinates:	45°55'30"N± 1" 61°27'24"W± 1"
Lithologic Log:	On file, by R. Cote, May 20, 1959.
Mechanical Logs:	Not on file.
Reference:	1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Ainslie Basin, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(06), 1914-1958.

ADDITIONAL INFORMATION:

The well was located "on the first road branching north-east from Highway 19, north of the village of Judique North. Drill was located 40' southeast of the bridge where the road crosses the Judique Interval Brook"[1].

A faint trace of oil stained limestone was intersected from 400 to 410 feet (121.9-125.0 m). The location was "immediately west of a normal fault separating the Canso and Windsor Groups"[1]. The Windsor contact was encountered at 390 feet (118.9 m). "Some of the limestones possessed coral structures and showed good pinpoint porosity"[1].

Well Identifier:	P-78	
Well Name:	Inverness No. 5	
Company/Contractor:	Imperial Oil Ltd., Drilling by Seismograph Service Corporation	
Date Spudded:	August 26, 1958	) dates) include
Date Rig Released:	September 10, 1958	) P-74 to P-79
Rig Name/Type:	Mayhew 1000 shot hole rig	
Total Depth:	100 feet (30.5 m)	
Location - Place:	Western side of Lake Ainslie, Inverness County (Fig. 8)	
- NTS:	11K/03A	
- Co-ordinates:	46°05'12"N± 10" 61°09'43"W± 15"	
Lithologic Log:	On file, by R. Cote, March 9, 1959.	
Mechanical Logs:	Not on file.	
Reference:	1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Ainslie Basin, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(06), 1914-1958.	

ADDITIONAL INFORMATION:

Inverness No. 5 was "a follow-up hole after Inverness #3 ... in order to test the Horton on the western flank of the Claverhouse Anticline. Slightly oil stained sandstones were encountered from 80 feet, and persisted to 100 feet"[1]. This sandstone was an aquifer with a flow that could not be stopped until the hole was cemented.

The well was located "160 feet south east along Lake Ainslie west side road, from Lake Ainslie west side post office ... on eastern flank of small creek ..."[1].

Well Identifier:	P-79
Well Name:	Inverness No. 6
Company/Contractor:	Imperial Oil Ltd., Drilling by Seismograph Service Corporation
Date Spudded:	August 26, 1958) dates) include
Date Rig Released:	September 10, 1958) P-74 to P-79
Rig Name/Type:	Mayhew 1000 shot hole rig
Total Depth:	170 feet (51.8 m)
Location - Place:	Western side of Lake Ainslie, Inverness County (Fig. 8)
- NTS:	11K/03A
- Co-ordinates:	46°04'58"N± 10" 61°09'39"W± 15"
Lithologic Log:	On file, by R. Cote, December 10, 1958.
Mechanical Logs:	Not on file.
Reference:	1. Cote, P. R., Imperial Oil Ltd., Exploration Work on Ainslie Basin, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(06), 1914-1958.

ADDITIONAL INFORMATION:

This well was drilled after Inverness No. 5 to further test the western flank of the Claverhouse Anticline. It was located "1,300 feet east of No. 5 ... on the west shore of Lake Ainslie, 2 1/4 miles south, 45° east of Inverness No. 3 ... 15 feet north of west side Lake Ainslie Road"[1].

It was hoped that the water problem encountered at the No. 5 hole would not be found to the east. "Traces of oil in the drilling mud were observed at 120' and continued to 163 feet"[1]. The well was abandoned at 170 feet (51.8 m) due to artesian water influx.

Well Identifier:	P-80
Well Name:	Lura No. 1, NSDM Record No. 2671
Company/Contractor:	Lura Corporation Ltd.
Date Spudded:	October 4, 1958
Date Rig Released:	December 12, 1958
Rig Name/Type:	Diamond Drill No. 10
Total Depth:	1,993 feet (607.5 m)
Location - Place:	Monks Head, Antigonish County (Fig. 7)
- NTS:	11F/12C
- Co-ordinates:	45°39'42"N± 10" 61°50'50"W± 15"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. MacNeil, D. J., Lura Corporation Ltd., Report on 1958 Drilling, Nova Scotia Department of Mines and Energy, Assessment Report 11F/12C 39-B-05(09), 1959. 2. Nova Scotia Department of Mines, Annual Report, 1958, p. 24-28.

ADDITIONAL INFORMATION:

The "borehole is located on the property of Abraham DeYoung about 50 feet north of a small brook and 150 feet southwest of the highway"[2].

Interest in the Lura No. 1 site was initiated by a strong gas show in a salt exploration well drilled by the Nova Scotia Department of Trade and Industry in 1952. The location selected was 8,500 feet (2591 m) northeast of this well on an anticlinal structure. It was hope that the Windsor limestones would have "sufficient porosity and permeability to constitute a reservoir of oil or gas"[1].

The main objectives of the well were to test the Quarry (B_1) limestone, the Canary (A_2) limestone and the Horton sandstone[1]. Due to the drill stem parting, these units were not penetrated. No significant hydrocarbon shows were encountered in the well. To offset the possibilities of caving, exceedingly heavy drilling mud was used[1].

Well Identifier: P-81

Well Name: Mabou No. 1

Company/Contractor: Imperial Oil Limited

Date Spudded: October 24, 1959

Date Rig Released: December 31, 1959

Rig Name/Type: Unknown

Total Depth: 5,145 feet (1568.2 m)

Location - Place: Mabou Station, Inverness County (Fig. 8)

- NTS: 11K/03B

- Co-ordinates: 46°01'25"N± 12"
61°24'03"W± 25"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Cote, P. R. and Hill, J. V., Imperial Oil Ltd., Exploration Work, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(07), 1960.

2. Nova Scotia Department of Mines, Annual Report, 1960, p. 82.

ADDITIONAL INFORMATION:

The well was located "approximately three miles south of Mabou Station"[1]. No traces of oil were found.

Well Identifier: P-82

Well Name: Port Hood No. 1

Company/Contractor: Imperial Oil Company Limited

Date Spudded: January 16, 1960

Date Rig Released: April 11, 1960

Rig Name/Type: Unknown

Total Depth: 9,840 feet (2999.2 m)

Location - Place: Port Hood, Inverness County (Fig. 8)

- NTS: 11K/03B

- Co-ordinates: 46°01'55"N± 12"
61°28'57"W± 25"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Cote, P. R. and Hill, J. V., Imperial Oil Ltd., Exploration Work, Nova Scotia Department of Mines and Energy, Assessment Report 11K/03 39-J-00(07), 1960.
2. Nova Scotia Department of Mines, Annual Report, 1960, p. 82.

ADDITIONAL INFORMATION:

No oil was found.

Well Identifier: P-83

Well Name: Pacific Fox Harbour C-96-V

Company/Contractor: Pacific Petroleums Ltd./Commonwealth Drilling Company Ltd.

Date Spudded: December 10, 1963

Date Rig Released: May 4, 1964

Rig Name/Type: Unknown

Total Depth: 9,853 feet (3003.2 m)

Location - Place: Fox Harbour, Cumberland County (Fig. 6)

- NTS: 11E/13A

- Co-ordinates: 45°50'56.25"N
63°30'46.87"W

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Pacific Petroleums Ltd., Report on the Reflection Seismograph Survey by Beaver Geophysical Services Ltd., Pugwash, Cumberland County, Nova Scotia Department of Mines and Energy, Assessment Report 11E/13A 39-E-33(01), 1963.
2. Pacific Petroleums Ltd., Report on Seismic Survey by Beaver Geophysical Services Ltd., Pugwash, Cumberland County, Nova Scotia Department of Mines and Energy, Assessment Report 11E/13A 39-E-33(02), 1967.
3. Pacific Petroleum Ltd., Well History - Pacific Fox Harbour, Fox Harbour, Cumberland County, Nova Scotia Department of Mines and Energy, Assessment Report 11E/13A 39-E-14(01), 1964.

ADDITIONAL INFORMATION:

The well was sited seven miles east of Pugwash. A possible "pyrobitumen?"[3] show was encountered at a depth of 2,480-2,510 feet (755.9-765.1 m). Core was cut in the Pictou Group and the Lower Windsor Group[3].

Well Identifier: P-84

Well Name: Birch Grove No. 1

Company/Contractor: Murphy Oil Company Ltd., Calgary, Alberta

Date Spudded: February 8, 1968

Date Rig Released: March 24, 1968

Rig Name/Type: Unknown

Total Depth: 4,408 feet (1343.6 m)

Location - Place: Glace Bay, Cape Breton County (Fig. 9)

- NTS: 11J/04C

- Co-ordinates: 46°08'42.40"N
59°56'05.04"W

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Mather, K. F., Sydney Petroleum Company, Petroleum Geology Sydney Area, Nova Scotia Department of Mines and Energy, Assessment Report 11J/04B 39-C-89(02), 1944.

2. McLean, R. T. and Choquette L., G. B., Murphy Oil et al., Birch Grove No. 1 Well History, Nova Scotia Department of Mines and Energy, Assessment Report 11J/04C 39-C-13(01), 1968.

3. Petcal, C. L., CDN Homestead Oils Ltd., Geological Report on Sydney Sub-Basin, Nova Scotia Department of Mines and Energy, Assessment Report 11J/04B 39-C-89(04), 1965.

ADDITIONAL INFORMATION:

The well, located on an anticline a few miles south of Glace Bay, did not encounter any petroleum shows.

Well Identifier: P-85

Well Name: Wallace Station No. 1 (Figs. 16 and 17)

Company/Contractor: Anschutz (Canada) Exploration Ltd./Garnett Drilling Ltd.

Date Spudded: December 22, 1972

Date Rig Released: August 29, 1973

Rig Name/Type: Unknown

Total Depth: 14,883 feet (4536 m)

Location - Place: Wallace Station, Cumberland County (Fig. 6)

- NTS: 11E/13A

- Co-ordinates: 45°46'15"N
63°30'30"W

Lithologic Log: On file.

Mechanical Logs: On file.

Reference: 1. Anschutz Corporation Ltd., Wallace Station No. 1, Well History Report, Nova Scotia Department of Mines and Energy, Assessment Report 11E/14B 39-E-47(01), 1973.

ADDITIONAL INFORMATION:

This deep test petroleum well was funded by Trans Gulf Transmission and cost approximately $1,000,000. No hydrocarbon shows were noted.

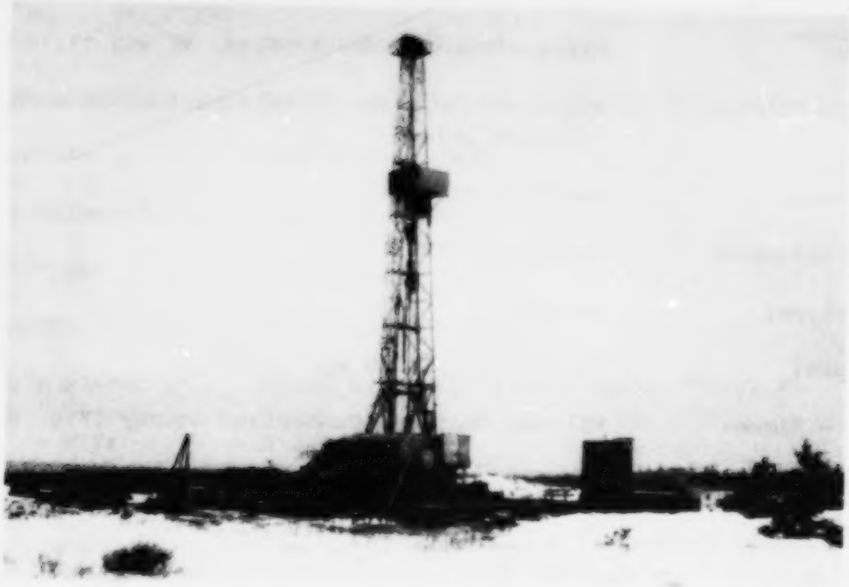

Figure 16. Petroleum exploration drilling by Anschutz (Canada) Exploration Ltd. at Wallace Station, Cumberland County, 1973, Wallace Station No. 1.

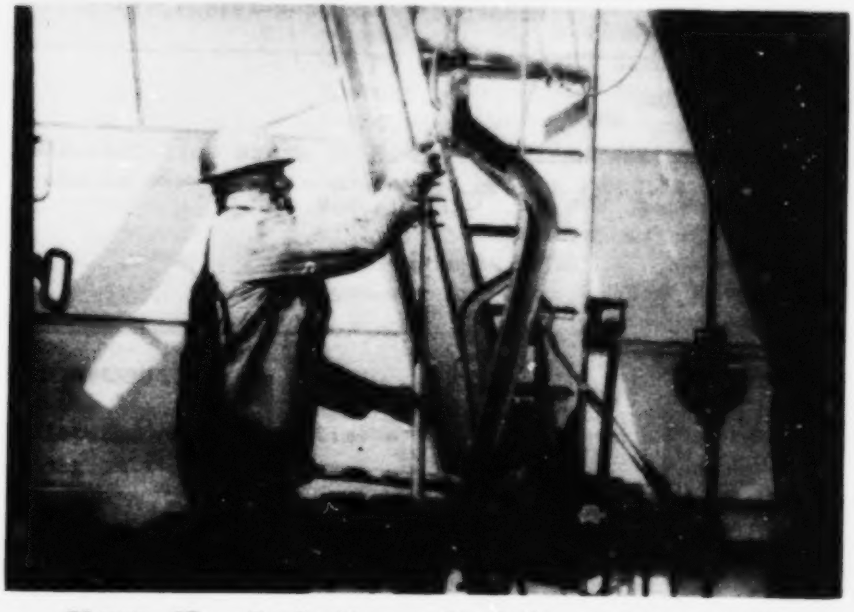

Figure 17. Conducting a downhole survey at Wallace Station No. 1, Cumberland County, Anschutz (Canada) Exploration Ltd., 1973.

Well Identifier: P-86

Well Name: Hastings No. 1

Company/Contractor: Gulf Oil Canada Ltd.

Date Spudded: June 11, 1975

Date Rig Released: August 11, 1975

Rig Name/Type: Kenting Rig No. 11

Total Depth: 9,644 feet (2939.5 m)

Location - Place: Amherst, Cumberland County (Fig. 6)

- NTS: 21H/16A

- Co-ordinates: 45°50'35"N
64°04'52"W

Lithologic Log: On file, by D. Howard.

Mechanical Logs: On file.

Reference: 1. Gulf Oil Canada Ltd., Hastings No. 1, Well History Report, Amherst, Cumberland County, Nova Scotia Department of Mines and Energy, Assessment Report 21H/16A 39-E-01(03), 1975.

ADDITIONAL INFORMATION:

The well penetrated 9,175 feet (2796.5 m) of continental fluvial clastics of Pennsylvanian age. "Background gas through the entire well ranged between 0.05 - 0.1% C_1. Between 8,654 & 8,656' a 2' drilling break gave a 1.0% C_1 gas kick ... This was interpreted as a salt water flow with trace of C_1"[1].

Well Identifier:	P-87
Well Name:	Noel No. 1
Company/Contractor:	SOQUIP A.C.C. et al./Regent Drilling Ltd.
Date Spudded:	July 18, 1975
Date Rig Released:	August 13, 1975
Rig Name/Type:	Unknown
Total Depth:	4,750 feet (1447.8 m)
Location - Place:	Kennetcook, Hants County (Fig. 6)
- NTS:	11E/04D
- Co-ordinates:	45°12'45"N 63°42'17"W
Lithologic Log:	On file, by J. Y. Lavoie.
Mechanical Logs:	Sonic BHC/GR, FDC-CNL, DIL
Reference:	1. SOQUIP A.C.C. et al., Noel No. 1, Well History Report, Nova Scotia Department of Mines and Energy, Assessment Report 11E/04D 39-I-30(01), 1975.

ADDITIONAL INFORMATION:

"The aim of the well was to evaluate, in a structurally favourable position, the hydrocarbon potential of the Windsor Group and the underlying Horton Bluff Formation"[1].

Shows of gas of up to 16% methane were recorded with connection gas readings to 30% methane[1].

Four drillstem tests were conducted. All recovered only formation water.

Well Identifier:	P-88
Well Name:	Brador Anschutz Hole No. 1 (Fig. 18)
Company/Contractor:	Brad d'Or Oil Company Ltd./Simmons Drilling Ltd.
Date Spudded:	July 27, 1976
Date Rig Released:	August 14, 1976
Rig Name/Type:	Rig No. 4
Total Depth:	3,427 feet (1044.6 m)
Location - Place:	Southside Antigonish Harbour, Antigonish County (Fig. 7)
- NTS:	11F/12C
- Co-ordinates:	45°39'10.86"N 61°53'01.37"W
Lithologic Log:	On file.
Mechanical Logs:	On file.
Reference:	1. Brador Oil Company Limited, Brador Anschutz Hole No. 1, South Side Harbour - Antigonish, Nova Scotia, Drilling and Completion Report, Nova Scotia Department of Mines and Energy, Assessment Report 11F/12C 39-B-25(01), 1976, p. 1-12.

Figure 18. Petroleum exploration drilling by Brador Company Ltd. at Antigonish Harbour, Antigonish County, 1976, Brador Anschutz No. 1.

ADDITIONAL INFORMATION:

"Dead stained" sandstone and "very light residue" were encountered from 950 to 960 feet (289.6 - 292.6 m). "Very light residue" was also encountered in dolomite from 1,070 to 1,080 feet (326.1 - 329.2 m)[1].

Well Identifier: P-89

Well Name: Bras d'Or No. 3A-78

Company/Contractor: Chevron Standard Ltd.

Date Spudded: July 23, 1978

Date Rig Released: Unknown

Rig Name/Type: Unknown

Total Depth: 597 feet (182 m)

Location - Place: Malagawatch, Inverness County (Fig. 8)

- NTS: 11F/14D

- Co-ordinates: 45°52'30"N
61°00'20"W

Lithologic Log: On file, by L. Dekker.

Mechanical Logs: On file.

Reference:

1. Chevron Standard Limited, Cape Breton, Nova Scotia, The Malagawatch Potash Exploration Program for 1980 and 1981, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 40-J-36(02), 1982.

2. Chevron Standard Ltd./Irving Oil Ltd., Inverness County, Cape Breton, Nova Scotia, Well History Malagawatch No. 1, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 39-J-36(01), Date Unknown .

3. Dekker, L., Potash Exploration at Malagawatch, Cape Breton, Nova Scotia, Canadian Institute of Mining and Metallurgy Bulletin, August 1985.

4. McMahon, P., Notes on Chevron-Irving Petroleum Drilling in the Malagawatch Area, Petroleum Resources Section Files, Nova Scotia Department of Mines and Energy, Halifax, Nova Scotia, 1985.

5. Thompson, I., Chevron Standard Limited, Bras d'Or, Inverness County, Nova Scotia Geology Map, Drill Logs and Geochemical Report, Barringer Magenta Limited, Soil Geochemistry, 3 maps, Drillhole Sections, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 07-J-71(02), 1978.

P-89 ADDITIONAL INFORMATION: (cont'd)

Chevron Standard Limited, as part of a base metal exploration program, drilled six BQ core holes in 1978 in the Malagawatch area. One of these, Chevron Bras d'Or No. 3-78, drilled to 627 feet (191.1 m), showed "oil scum ... on the returns"[1]. On the lithologic log provided by Chevron, it was reported that "everytime core barrel was pulled, medium gravity crude oil oozed out of well. Flow would be approximately two gallons/hour"[5].

To test this occurrence, a second hole, Chevron Bras d'Or No. 3A-78 was spudded six feet (1.8 m) away from No. 3-78. This "hole had a major oil show in addition to several minor ones. Through water injection in hole No. 3A-78 oil flow to surface was obtained (through hole 3-78) at a sustained rate of approximately two gallons per minute for five minutes through a 2-inch valve"[1]. The producing zone was a "slightly porous (<5%), vuggy, microcystalline limestone"[1] estimated to be two inches (5 cm) thick at a depth of 291.3 feet (88.8 m). "The light 40.4° API crude was of high quality and contained only 0.24% sulphur. This discovery resulted in a major lease acquisition by Chevron Standard of Calgary"[1] within Nova Scotia.

Well Identifier: P-90

Well Name: Bras d'Or No. 1

Company/Contractor: Chevron Standard Ltd./Irving Oil Ltd.

Date Spudded: September 21, 1979

Date Rig Released: September 30, 1979

Rig Name/Type: Guthrie McLaren Rig No. 8

Total Depth: 709 feet (216 m)

Location - Place: Malagawatch, Inverness County (Fig. 8)

- NTS: 11F/14D

- Co-ordinates: 45°52'30"N
61°00'20"W

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Chevron Standard Ltd., Cape Breton, Nova Scotia, The Malagawatch Potash Exploration Program for 1980 and 1981, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 40-J-36(02), 1982.
2. Chevron Standard Ltd./Irving Oil Ltd., Inverness County, Cape Breton, Nova Scotia, Well Report Bras d'Or No. 1, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 39-J-71(01), 1979.
3. McMahon, P., Notes on Chevron-Irving Petroleum Drilling in the Malagawatch Area, Petroleum Resources Section Files, Nova Scotia Department of Mines and Energy, Halifax, Nova Scotia, 1985.

ADDITIONAL INFORMATION:

Exploration for hydrocarbons by Chevron Standard Limited "started in earnest with a regional gravity survey supplemented by a rotary drill program consisting of three holes. The first one, Chevron Irving Bras d'Or #1 redrilled the initial discovery hole #3-78. The well was taken to basement ... A drillstem test over the interval from 193 m - 216 m produced 22 m of mud cut oil from the contact between the basal Windsor carbonate and the overlying anhydrite. This show was deemed non-commercial"[1].

Well Identifier: P-91

Well Name: Bras d'Or No. 2

Company/Contractor: Chevron Standard Ltd./Irving Oil Ltd.

Date Spudded: October 3, 1979

Date Rig Released: October 15, 1979

Rig Name/Type: Guthrie McLaren Rig No. 8

Total Depth: 1,230.3 feet (375 m)

Location - Place: Malagawatch, Inverness County (Fig. 8)

- NTS: 11F/14D

- Co-ordinates: 45°52'45"N
61°00'05"W

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Chevron Standard Ltd./Irving Oil Ltd., Inverness County, Cape Breton, Nova Scotia, Well Report Bras d'Or No. 2, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 39-J-71(02), 1979.

2. McMahon, P., Notes on Chevron-Irving Petroleum Drilling in the Malagawatch Area, Petroleum Resources Section Files, Nova Scotia Department of Mines and Energy, Halifax, Nova Scotia, 1985.

ADDITIONAL INFORMATION:

"Chevron Irving Bras d'Or #2 was drilled for oil ... 1,148.3 feet (350 m) down dip from Chevron Irving Bras d'Or #1 ... This well encountered an anhydrite section overlying a thin basal Windsor carbonate sitting directly on basement. At 459.3 to 467.5 feet (140 m to 142.5 m), yellow fluorescence on some dolomite chips was observed of the same colour as that of crude from Bras d'Or #1. Fractures and faces between calcite crystals were oil/bitumen stained and good fluorescence was shown from chips at 738.19 to 754.59 feet (225 m to 230 m). At 836.6 to 853 feet (255 to 260 m), oil stained limestone chips were encountered. No commercial quantities of hydrocarbons were found"[2].

Well Identifier:	P-92
Well Name:	Malagawatch No. 1
Company/Contractor:	Chevron Standard Ltd./Irving Oil Ltd.
Date Spudded:	October 31, 1979
Date Rig Released:	November 23, 1979
Rig Name/Type:	Guthrie McLaren Rig No. 8
Total Depth:	10,203 feet (3110 m)
Location - Place:	Malagawatch, Inverness County (Fig. 8)
- NTS:	11F/15B
- Co-ordinates:	45°52'05"N 60°55'18"W
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Chevron Standard Limited, Inverness County, Cape Breton, Nova Scotia, The Malagawatch Potash Exploration Project for 1980 and 1981, by A. Berti, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 40-J-36(02), 1982. 2. McMahon, P., Notes on Chevron-Irving Petroleum Drilling in the Malagawatch Area, Petroleum Resources Section Files, Nova Scotia Department of Mines and Energy, 1985.

ADDITIONAL INFORMATION:

"This location was chosen on the basis of a small negative Bouguer gravity anomally interpreted as a small basal Windsor carbonate build up containing possible oil reserves of 40 MM barrels. This well entered a salt section at 759.5 feet (231.5 m). Black, tarry oil was encountered at various depths from 1,410.8 to 2,378.6 feet (430 m to 725 m). The oil, with good yellow fluorescence similar to oil from Bras d'Or #1, was reported as sticking salt chips together. The rig was released on November 23, 1979, with no tests having been conducted"[2].

Well Identifier:	P-93
Well Name:	Scotsburn No. 2 (Fig. 19)
Company/Contractor:	Chevron Standard Ltd./Irving Oil Ltd.
Date Spudded:	August 11, 1981
Date Rig Released:	November 29, 1981
Rig Name/Type:	Regent Drilling Rig No. 28
Total Depth:	8,654.9 feet (2638 m)
Location - Place:	Scotsburn, Pictou County (Fig. 7)
- NTS:	11E/11D
- Co-ordinates:	45°38'21.59"N 60°00'10.78"W
Lithologic Log:	On file, by S. Taylor and D. MacInnes.
Mechanical Logs:	BHC-Sonic-GR (Run 1, 2 & 3), DISFL (Run 1), DDL (Run 1), CN-FDC (Run 1, 2 & 3), MLL-ML (Run 1).
Reference:	1. Irving Oil Ltd./Chevron Standard Ltd., Pictou County, Nova Scotia, Final Well History Scotsburn No. 2, Nova Scotia Department of Mines and Energy, Assessment Report 11E/10C 39-M-27(02), 1981, p. 1-26.

Figure 19. Petroleum exploration drilling by Chevron Standard Ltd. and Irving Oil Ltd. at Scotsburn, Pictou County, 1981, Scotsburn No. 2.

ADDITIONAL INFORMATION:

The well was spudded in Middle Devonian age rocks and completed in the Mississippian Windsor Group. Oil stains were encountered from 377.2 to 393.7 feet (115-120 m), from 557.7 to 574.1 feet (170-175 m) and from 1,312.2 to 1,345.1 feet (400-410 m). Two drillstem tests (DST) were run over the same zone, because the first was a misrun. DST No. 2 produced a weak air flow which decreased to dead in 130 minutes[1].

Well Identifier: P-94

Well Name: Port Malcolm

Company/Contractor: CORKAN Engineering of Canada Ltd.

Date Spudded: September 13, 1983

Date Rig Released: October 16, 1983

Rig Name/Type: Rebel No. 6

Total Depth: 3,582 feet (1091.8 m)

Location - Place: Port Malcolm, Richmond County (Fig. 8)

- NTS: 11F/11B

- Co-ordinates: 45°34'49.89"N
61°17'43.82"W

Lithologic Log: Lithologic summary on file.

Mechanical Logs: Not on file.

Reference: 1. Nova Scotia Department of Mines and Energy, Petroleum Resources Section Files, Halifax, Nova Scotia, 1985.

ADDITIONAL INFORMATION:

In 1983 CORKAN Engineering of Canada Ltd. initiated a drilling program in southeastern Cape Breton Island in which four wells were drilled. Much of the data concerning these wells (geological reports, mechanical logs, etc.) have not been submitted to date, due to the company's financial difficulties.

The Port Malcolm well was terminated because of the twisting off and failure to retrieve the drillpipe.

Well Identifier: P-95

Well Name: Bear Island

Company/Contractor: CORKAN Engineering of Canada Ltd.

Date Spudded: September 30, 1983

Date Rig Released: January 11, 1984
Plugged and abandoned by Nova Scotia Department of Mines and Energy, August, 1984.

Rig Name/Type: Water Well Rig; Rebel No. 6

Total Depth: 1,359 feet (414.2 m)

Location - Place: Bear Island, Richmond County (Fig. 8)

- NTS: 11F/11B

- Co-ordinates: 45°34'21.64"N
61°17'54.07"W

Lithologic Log: Lithologic summary on file.

Mechanical Logs: Not submitted to Nova Scotia Department of Mines and Energy.

Reference:
1. Nova Scotia Department of Mines and Energy, Petroleum Resources Section Files, Halifax, Nova Scotia, 1985.

ADDITIONAL INFORMATION:

See also P-94.

On September 30, 1983, the surface hole was spudded by a water well rig to allow casing to be set at approximatley 160 feet (49 m). The rotary rig, Rebel No. 6, began drilling on October 19, 1983, and continued the hole to a depth of 1,359 feet (414.2 m). The well was suspended on January 11, 1984, after the pipe twisted off and could not be recovered.

Due to the failure of CORKAN Engineering to properly abandon the site, the well was plugged and abandoned by the Nova Scotia Department of Mines and Energy in August 1984.

Well Identifier: P-96

Well Name: Loch Lomond

Company/Contractor: CORKAN Engineering of Canada Ltd.

Date Spudded: October 28, 1983

Date Rig Released: Total Depth reached on March 1, 1984. Plugged and abandoned by Nova Scotia Department of Mines and Energy, August 1984.

Rig Name/Type: Water Well Rig; Shramm Air Rig

Total Depth: 810 feet (246.9 m)

Location - Place: Loch Lomond, Richmond County (Fig. 8)

- NTS: 11F/15A

- Co-ordinates: 45°46'11.24"N
60°35'26.89"W

Lithologic Log: Not submitted to the Nova Scotia Department of Mines and Energy.

Mechanical Logs: Not submitted to Nova Scotia Department of Mines and Energy.

Reference: 1. Nova Scotia Department of Mines and Energy, Petroleum Resources Section Files, Halifax, Nova Scotia, 1985.

ADDITIONAL INFORMATION:

See also P-94.

No data have been submitted regarding this well.

Due to the failure of CORKAN Engineering to properly abandon the site, the well was plugged and abandoned by the Nova Scotia Department of Mines and Energy in August 1984.

Well Identifier:	P-97
Well Name:	North Glen
Company/Contractor:	CORKAN Engineering of Canada Ltd.
Date Spudded:	October 27, 1983
Date Rig Released:	March 2, 1984. Plugged and abandoned by Nova Scotia Department of Mines and Energy, August 1984.
Rig Name/Type:	Water Well Rig; Rebel No. 6.
Total Depth:	4,120 feet (1255.8 m)[?]
Location - Place:	North Glen, Cape Breton County (Fig. 8)
- NTS:	11F/15A
- Co-ordinates:	45°50'31.59"N 60°30'59.92"W
Lithologic Log:	Summary log is on file; additional data have not been submitted.
Mechanical Logs:	Not submitted to Nova Scotia Department of Mines and Energy.
Reference:	1. Nova Scotia Department of Mines and Energy, Petroleum Resources Section Files, Halifax, Nova Scotia, 1985.

ADDITIONAL INFORMATION:

See also P-94.

On October 17, 1983, a water well rig spudded to a depth of 200 feet (61 m). The conventional rig, Rebel No. 6, re-entered and began drilling on January 18, 1984, and was released on March 2, 1984. A total depth of 4,120 feet (1255.8 m) was said to have been reached.

Due to the failure of CORKAN Engineering to properly abandon the site, the well was plugged and abandoned by the Nova Scotia Department of Mines and Energy in August 1984.

OTHER DRILLHOLES WITH PETROLEUM SHOWS

Well Identifier:	M-1
Well Name:	NSDM Record No. 96, Borehole No. 2
Company/Contractor:	Port Hood Coal Company
Date Spudded:	March 14, 1903
Date Rig Released:	May 19, 1903
Rig Name/Type:	Calyx, No. 7 Drill
Total Depth:	735 feet (224.0 m)
Location - Place:	Port Hood, Inverness County (Fig. 8)
- NTS:	11K/04A
- Co-ordinates:	46°00'15"N± 15" 61°31'17"W± 25"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1903, p. 69, 73-75.

ADDITIONAL INFORMATION:

The hole drilled for coal was located "300 feet east of an iron bridge over Little River"[1], Port Hood, Inverness County. The well was reported to have encountered "4 inches of 'oily sand', ... at 728 feet ..."[1].

Well Identifier:	M-2
Well Name:	Hole 28, NSDM Record No. 310
Company/Contractor:	Unknown
Date Spudded:	October 1913
Date Rig Released:	October 1913
Rig Name/Type:	Steam driven diamond drill
Total Depth:	232 feet (70.7 m)
Location - Place:	Windsor, Hants County (Fig. 6)
- NTS:	21A/16D
- Co-ordinates:	44°58'48"N± 1" 64°04'30"W± 1"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1913, p. 192, 198.

ADDITIONAL INFORMATION:

Located "on the property of the Wentworth Gypsum company in and about Eagle Swamp and Wentworth Creek"[1] near Windsor, Hants County. Two holes were drilled, Holes 28 and 29, in search of gypsum.

Hole 28 encountered a "strong odour of oil"[1], in limestone, at a depth of 235 feet (71.6 m).

Well Identifier:	M-3
Well Name:	Hole 29, NSDM Record No. 311
Company/Contractor:	Unknown
Date Spudded:	October 1913
Date Rig Released:	October 1913
Rig Name/Type:	Steam driven diamond drill
Total Depth:	70+ feet (21.3+ m)
Location - Place:	Windsor, Hants County (Fig. 6)
- NTS:	21A/16D
- Co-ordinates:	44°58'48"N± 1" 64°04'30"W± 1"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Annual Report, 1913, p. 192, 198.

ADDITIONAL INFORMATION:

See also M-2.

Hole 29 encountered a "strong odour of oil"[1], in gypsum, at 70 feet (21.3 m). The drill was still operating when the report included in the above reference was made.

Well Identifier:	M-4
Well Name:	Acadia Coal Company (ACC) 56; NS 677
Company/Contractor:	Acadian Coal Company
Date Spudded:	February 18, 1928
Date Rig Released:	March 30, 1928
Rig Name/Type:	Unknown
Total Depth:	910 feet (277.4 m)
Location - Place:	Stellarton, Pictou County (Fig. 7)
- NTS:	11E/10A
- Co-ordinates:	45°34'29"N± 10" 62°36'16"W± 15"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines and Energy, Coal Section compiled notes (no date).

ADDITIONAL INFORMATION:

This hole, drilled to define coal reserves, intersected a "strong blower of gas"[1] at 527.6 feet (160.8 m). Remarks from the lithologic log (on file) indicates the gas blower was easing off by the time 637 feet (194.2 m) was reached and that the gas pressure was growing less by the time a depth of 667 feet (203.3 m) was reached[1].

Well Identifier: M-5

Well Name: NSDM Record No. 884

Company/Contractor: Inverness Coal Mine

Date Spudded: August 11, 1938

Date Rig Released: September 28, 1938

Rig Name/Type: Diamond Drill No. 10

Total Depth: 689 feet (210 m). See notes below.

Location - Place: Inverness, Inverness County (Fig. 8)

- NTS: 11K/03C

- Co-ordinates: 46°14'08"N± 40"
61°18'18"W± 1"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference: 1. Nova Scotia Department of Mines, Annual Report, 1938, p. 218-223.

ADDITIONAL INFORMATION:

This hole was drilled for structural coal information and was spudded "underground at No. 9 level of the West Angle Deep"[1]. It was "drilled north into roof at an angle of 6 to 8 degrees"[1]. A "distinct odour of oil"[1] was encountered at 230 feet (70.1 m) in fine- to medium-grained massive grey sandstone[1].

Well Identifier: M-6

Well Name: NSDM Record No. 1836; Salt Hole No. 7

Company/Contractor: Department of Trade and Industry

Date Spudded: Between January 24 and June 19, 1952

Date Rig Released: Between January 24 and June 19, 1952

Rig Name/Type: Diamond Drill No. 3

Total Depth: 1,432 feet (436.5 m)

Location - Place: Southside Antigonish Harbour, Antigonish County (Fig. 7)

- NTS: 11F/12C

- Co-ordinates: 45°39'08"N± 10"
61°52'55"W± 15"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Bonner, I. L., A Geological Appraisal of the Oil-Gas-Limestone-Salt Possibilities of the Antigonish Harbour Area, B.Sc. Thesis, St. Francis Xavier University, Antigonish, Nova Scotia, 1953, Nova Scotia Department of Mines and Energy, Thesis 030.

2. Bonner, I. L., Map of Geology of the Southside Harbour Area, April, 1954.

3. Coakley, J. P., A Geological Appraisal of the Possibilities for Petroleum and/or Natural Gas in the Antigonish Area, B.Sc. Thesis, St. Francis Xavier University, Antigonish, Nova Scotia, 1964, Nova Scotia Department of Mines and Energy, Thesis 057.

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5. Hill, C. P. and Sage, N. M., Antigonish Area, Antigonish County, Nova Scotia, Geology of West Half Antigonish Quad, Nova Scotia Department of Mines and Energy, Assessment Report 11F/12W 39-B-04(03), 1952.

M-6 (cont'd)

Reference:

6. MacNeil, D. J., Antigonish Area, Antigonish County, Nova Sctoia, Gas and Petroleum Possibilities and Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/12W 39-B-04(01), 1947.

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8. MacNeil, D. J., Eastern-Northern Explorations Ltd., Antigonish Harbour, Antigonish County, Nova Scotia, Petroleum Possibilities, Nova Scotia Department of Mines and Energy, Assessment Report 11F/12C 39-B-05(03), 1955.

9. MacNeil, D. J., Lura Corporation Ltd., Antigonish Harbour, Antigonish County, Nova Scotia, Report on 1958 Drilling, Nova Scotia Department of Mines and Energy, Assessment Report 11F/12C 39-B-05(06), 1959.

10. Nova Scotia Department of Mines, Annual Report, 1952, p. 55-56.

11. Shaw, W. S., Southside Harbour, Antigonish County, Nova Scotia, Report on Salt Exploration at Southside Harbour, Maps and DDH and Geology, Nova Scotia Department Mines and Energy, Assessment Report 11F/12C 42-B-25(01), 1969.

ADDITIONAL INFORMATION:

This hole encountered a "natural gas flow between 1,202 and 1,204 feet"[10] in salt and anhydrite. It was postulated "that the gas may have been trapped in the underlying Canary Limestone or some porous bed below 1,432 feet ..."[1]. An analysis of the gas "made by the National Research Laboratories ..." showed "that it contained over 17% ethane"[1].

Well Identifier: M-7

Well Name: Borehole No. 1

Company/Contractor: Nova Scotia Department of Mines

Date Spudded: In 1956 or 1957

Date Rig Released: In 1956 or 1957

Rig Name/Type: Unknown

Total Depth: 640 feet (195.1 m)

Location - Place: McLellans Brook, Pictou County (Fig. 7)

- NTS: 11E/10A

- Co-ordinates: 45°33'00"N± 5"
62°36'15"W± 5"

Lithologic Log: On file, by W. A. Bell.

Mechanical Logs: Not on file.

Reference:

1. Bell, W. A., 1957, Diamond Drill Hole Logs, Oil Shales - Pictou Coalfield, 1956-1957, Draft Material.

2. Goudge, M. G., MacLellans Brook, Pictou County, Nova Scotia, Report of DDH and Assays, Nova Scotia Department of Mines and Energy, Assessment Report 11E/10A 37-M-15(01), 1957, p. 1-5.

ADDITIONAL INFORMATION:

In 1956, the Nova Scotia Department of Mines initiated a diamond drilling program in the McLellans Brook area to assess the potential of the oil shales. The program was completed in 1957, with six of the fifteen holes drilled having hydrocarbon shows. (Borehole Nos. 1, 4, 7, 9, 12 and 14)

Borehole No. 1 intersected petroliferous, fine grained, light grey to brownish grey sandstone, from a depth of 415 feet (126.5 m) to 423.6 feet (128.9 m)[2].

Well Identifier: M-8

Well Name: Borehole No. 4

Company/Contractor: Nova Scotia Department of Mines

Date Spudded: In 1956 or 1957

Date Rig Released: In 1956 or 1957

Rig Name/Type: Unknown

Total Depth: 615 feet (187.5 m)

Location - Place: McLellans Brook, Pictou County (Fig. 7)

- NTS: 11E/10A

- Co-ordinates: 45°32'58"N± 5"
62°36'10"W± 5"

Lithologic Log: On file, by W. A. Bell.

Mechanical Logs: Not on file.

Reference:

1. Bell, W. A., 1957, Diamond Drill Hole Logs, Oil Shales - Pictou Coalfield, 1956-1957, Draft Material.
2. Goudge, M. G., MacLellans Brook, Pictou County, Nova Scotia, Report of DDH and Assays, Nova Scotia Department of Mines and Energy, Assessment Report 11E/10A 37-M-15(01), 1957, p. 12-20.

ADDITIONAL INFORMATION:

See Borehole No. 1 (M-7), Borehole Nos. 7, 9, 12 and 14 (M-9 to M-12).

Borehole No. 4 intersected petroliferous, fine grained light grey and light brown sandstones from 552.5 feet (168.4 m) to 565.0 feet (172.2 m)[2].

Well Identifier:	M-9
Well Name:	Borehole No. 7
Company/Contractor:	Nova Scotia Department of Mines
Date Spudded:	In 1956 or 1957
Date Rig Released:	In 1956 or 1957
Rig Name/Type:	Unknown
Total Depth:	520 feet (158.5 m)
Location - Place:	McLellans Brook, Pictou Cunty (Fig. 7)
- NTS:	11E/10A
- Co-ordinates:	45°33'08"N± 5" 62°35'40"W± 5"
Lithologic Log:	On file, by W. A. Bell.
Mechanical Logs:	Not on file.
Reference:	1. Bell, W. A., 1957, Diamond Drill Hole Logs, Oil Shales - Pictou Coalfield, 1956-1957, Draft Material. 2. Goudge, M. G., MacLellans Brook, Pictou County, Nova Scotia, Report of DDH and Assays, Nova Scotia Department of Mines and Energy, Assessment Report 11E/10A 37-M-15(01), 1957, p. 32-42.

ADDITIONAL INFORMATION:

See Borehole No. 1 (M-7), Borehole Nos. 4, 9, 12 and 14 (M-8, M-10 to M-12).

Borehole No. 7 intersected petroliferous, fine grained, brownish grey, sandstones from 506 feet (154.2 m) to the total depth of 520 feet (158.5 m)[2].

Borehole No. 1 intersected petroliferous, fine grained, light grey to brownish grey sandstone, from a depth of 415 feet (126.5 m) to 423.6 feet (128.9 m)[2].

Well Identifier: M-10

Well Name: Borehole No. 9

Company/Contractor: Nova Scotia Department of Mines

Date Spudded: In 1956 or 1957

Date Rig Released: In 1956 or 1957

Rig Name/Type: Unknown

Total Depth: 708 feet (215.8 m)

Location - Place: McLellans Brook, Pictou County (Fig. 7)

- NTS: 11E/10A

- Co-ordinates: 45°34'28"N± 5"
62°35'20"W± 5"

Lithologic Log: On file, by W. A. Bell.

Mechanical Logs: Not on file.

Reference:

1. Bell, W. A., 1957, Diamond Drill Hole Logs, Oil Shales - Pictou Coalfield, 1956-1957, Draft Material.
2. Goudge, M. G., MacLellans Brook, Pictou County, Nova Scotia, Report of DDH and Assays, Nova Scotia Department of Mines and Energy, Assessment Report 11E/10A 37-M-15(01), 1957, p. 54-70.

ADDITIONAL INFORMATION:

See Borehole No. 1 (M-7), Borehole Nos. 4, 7, 12 and 14 (M-8, M-9, M-11, M-12).

Borehole No. 9 intersected at 527 feet (160.6 m) a vuggy vertical calcite veinlet with a slight amount of bitumen in the vugs. The veinlet was a 3.7-foot (1.1 m) shale siltstone section that was interbedded between fine grained sandstones[2].

Well Identifier:	M-11
Well Name:	Borehole No. 12
Company/Contractor:	Nova Scotia Department of Mines
Date Spudded:	In 1956 or 1957
Date Rig Released:	In 1956 or 1957
Rig Name/Type:	Unknown
Total Depth:	647 feet (197.2 m)
Location - Place:	McLellans Brook, Pictou County (Fig. 7)
- NTS:	11E/10A
- Co-ordinates:	45°34'08"N± 5" 62°36'35"W± 5"
Lithologic Log:	On file, by W. A. Bell.
Mechanical Logs:	Not on file.
Reference:	1. Bell, W. A., 1957, Diamond Drill Hole Logs, Oil Shales - Pictou Coalfield, 1956-1957, Draft Material. 2. Goudge, M. G., MacLellans Brook, Pictou County, Nova Scotia, Report of DDH and Assays, Nova Scotia Department of Mines and Energy, Assessment Report 11E/10A 37-M-15(01), 1957, p. 55-104.

ADDITIONAL INFORMATION:

See Borehole No. 1 (M-7), Borehole Nos. 4, 7, 9 and 14 (M-8 to M-10, M-12).

Borehole No. 12 intersected petroliferous, brownish grey, very fine grained sandstones with petroliferous odour from 374 feet (114.0 m) to 385 feet (117.4 m) and from 616.5 feet (187.9 m) to 625 feet (190.5 m)[2].

Well Identifier:	M-12
Well Name:	Borehole No. 14
Company/Contractor:	Nova Scotia Department of Mines
Date Spudded:	In 1956 or 1957
Date Rig Released:	In 1956 or 1957
Rig Name/Type:	Unknown
Total Depth:	715 feet (219.9 m)
Location - Place:	McLellans Brook, Pictou County (Fig. 7)
- NTS:	11E/10A
- Co-ordinates:	45°34'03"N± 5" 62°37'06"W± 5"
Lithologic Log:	On file, by W. A. Bell.
Mechanical Logs:	Not on file.
Reference:	1. Bell, W. A., 1957, Diamond Drill Hole Logs, Oil Shales - Pictou Coalfield, 1956-1957, Draft Material. 2. Goudge, M. G., MacLellans Brook, Pictou County, Nova Scotia, Report of DDH and Assays, Nova Scotia Department of Mines and Energy, Assessment Report 11E/10A 37-M-15(01), 1957, p. 115-124.

ADDITIONAL INFORMATION:

See Borehole No. 1 (M-7), Borehole Nos. 4, 7, 9 and 12 (M-8 to M-11).

Borehole No. 14 intersected very slightly petroliferous, brownish grey, fine grained sandstones which occurred in 2-inch (5.1 cm) thick bands ribboned with argillaceous shale from 543 feet (165.5 m) to 545 feet (166.1 m)[2].

Well Identifier:	M-13
Well Name:	NSDM Record No. 3491
Company/Contractor:	Nova Scotia Department of Mines
Date Spudded:	1961
Date Rig Released:	Unknown
Rig Name/Type:	Diamond Drill No. 11
Total Depth:	120 feet (36.58 m)
Location - Place:	Irish Cove, Richmond County (Fig. 8)
- NTS:	11F/15A
- Co-ordinates:	45°49'04"N± 30" 60°40'30"W± 45"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines and Energy, Irish Cove, Richmond County, Nova Scotia, Miscellaneous DDH Logs and Assays, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15A 28-0-9(01), 1949-1963. 2. Nova Scotia Department of Mines, Annual Report, 1961, p. 37-38.

ADDITIONAL INFORMATION:

This hole was drilled for limestone. A strong petroliferous smell was detected on the core in brownish-grey, fossiliferous to coquina limestone from 48 to 55 feet (14.6-16.8 m) and in grey fossiliferous limestones at varying depths below 55 feet (16.8 m)[1].

Well Identifier: M-14

Well Name: NSDM Record No. 3695

Company/Contractor: Nova Scotia Department of Mines

Date Spudded: June 3, 1963

Date Rig Released: June 5, 1963

Rig Name/Type: Unknown

Total Depth: 101 feet (36.8 m)

Location - Place: Irish Cove, Richmond County (Fig. 8)

- NTS: 11F/15A

- Co-ordinates: Unknown

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Nova Scotia Department of Mines and Energy, Irish Cove, Richmond County, Nova Scotia, Miscellaneous DDH Logs and Assays, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15A 28-0-9(01), 1949-1963.
2. Nova Scotia Department of Mines, Annual Report, 1963, p. 9-10.

ADDITIONAL INFORMATION:

The hole was drilled for limestone. A slight petroliferous odour was detected in the limestones from 20 to 32 feet (6.1-9.75 m) and from 60 to 78.4 feet (18.3-23.9 m).

Well Identifier: M-15

Well Name: NSDM No. 6523; Borehole No. 13

Company/Contractor: Texasgulf Inc.

Date Spudded: November 19, 1975

Date Rig Released: November 20, 1975

Rig Name/Type: Diamond Drill No. 9

Total Depth: 77 feet (23.5 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 46°59'08"N± 5"
60°57'09"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Nova Scotia Department of Mines, Drilling Logs of Government Core Drills, Report 76-3, 1975.
2. Graham, R. A. F., Texasgulf Inc., Jubilee, Victoria County, Nova Scotia, Driil Report, Drill Logs, Sections, Correlations, Assays, Analyses and Geology Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 27-Q-09(11), 1975.

ADDITIONAL INFORMATION:

Diamond-drill hole No. 13, which was drilled for base metals intersected a laminated, dark grey limestone from 63 to 67.5 feet (19.2-20.6 m), which contained "minor hydrocarbons in vugs"[2].

Well Identifier:	M-16
Well Name:	NSDM No. 6524; Borehole No. 14
Company/Contractor:	Texasgulf Inc.
Date Spudded:	November 24, 1975
Date Rig Released:	November 26, 1975
Rig Name/Type:	Diamond Drill No. 9
Total Depth:	228 feet (69.5 m)
Location - Place:	Jubilee, Victoria County (Fig. 8)
- NTS:	11F/15C
- Co-ordinates:	46°59'04"N± 5" 60°56'58"W± 5"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Nova Scotia Department of Mines, Drilling Logs of Government Core Drills, Report 76-3, 1975. 2. Graham, R. A. F., Texasgulf Inc., Jubilee, Victoria County, Nova Scotia, Drill Report, Drill Logs, Sections, Correlations, Assays, Analyses and Geology Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 27-Q-09(11), 1975.

ADDITIONAL INFORMATION:

Diamond-drill hole No. 14, which was drilled for base metals, intersected a dark grey limestone from 160 to 161.5 feet (48.8-49.2 m), which contained rounded lighter grey limestone pebbles in a dark grey-black silty matrix with minor hydrocarbons. A limestone intersected from 163.9 to 178 feet (50-54.3 m) also contained minor hydrocarbons in calcite filled cavities[2].

Well Identifier:	M-17
Well Name:	IR-3-74
Company/Contractor:	Amax Exploration Inc.
Date Spudded:	July 22, 1974
Date Rig Released:	August 7, 1974
Rig Name/Type:	Wireline
Total Depth:	1,042 feet (317.6 m)
Location - Place:	Jubilee, Victoria County (Fig. 8)
- NTS:	11F/15C
- Co-ordinates:	45°57'30"N± 1" 60°56'19"W± 1"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Diamond Drill Logs, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 27-Q-09(09), 1973.

ADDITIONAL INFORMATION:

The hole was drilled for metallic minerals (lead-zinc). Limestone intersected from 673.5 feet (205.3 m) to 689 feet (210 m) was described as massive, dark grey colour, and petroliferous[1].

Well Identifier:	M-18
Well Name:	ATG-1-76
Company/Contractor:	Amax Exploration Inc./St. Lambert
Date Spudded:	May 19, 1976
Date Rig Released:	May 22, 1976
Rig Name/Type:	Wireline
Total Depth:	147 feet (44.8 m)
Location - Place:	Jubilee, Victoria County (Fig. 8)
- NTS:	11F/15C
- Co-ordinates:	46°59'08"N± 5" 60°56'44"W± 5"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Clemiss, K. R., Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Geology with Geochemical Locations and Drill Logs, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(03), 1978. 2. Isenor, G. P., Amax Exploration Inc. and Texasgulf Canada Limited, Iona Rear, Victoria County, Nova Scotia, Texam Joint Venture Project 585, Drill Logs and Sections, Assays, IP Survey and two Geology Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(02), 1976.

ADDITIONAL INFORMATION:

This hole, which was drilled for base metals, intersected a petroliferous limestone from 77 to 83 feet (23.5-25.3 m). Vugs are filled with pyritic, zinc and lead mineralization. From 81 to 83 feet (24.7-25.3 m), the limestone is "extremely petroliferous with vugs filled with hydrocarbons/bitumen"[2].

Well Identifier: M-19

Well Name: ATG-5-76

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: May 31, 1976

Date Rig Released: June 4, 1976

Rig Name/Type: Wireline

Total Depth: 377 feet (114.9 m)

Location - Place: Iona Rear, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 46° 59' 14" N± 5"
60° 56' 47" W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Isenor, G. P., Amax Exploration Inc. and Texasgulf Canada Limited, Iona Rear, Victoria County, Nova Scotia, Texam Joint Venture, Project 585, Drill Logs and Sections, Assays, IP Survey and two Geology Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(02), 1976.

ADDITIONAL INFORMATION:

This hole, which was drilled for base metals, intersected a massive, blue grey anhydrite from 70-86 feet (21.3-26.2 m) and from 177-314 feet (53.9-95.7 m), which gave off traces of a petroliferous odour. Also reported in the straigraphic log, at 333.5 feet (101.7 m), were sections of limestone and cavities filled with oil and tar. The carbonate displayed broken texture and/or slump fractures[1].

Well Identifier: M-20

Well Name: ATG-8-76

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: June 7, 1976

Date Rig Released: June 9, 1976

Rig Name/Type: Wireline

Total Depth: 417 feet (127.1 m)

Location - Place: Iona Rear, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 46°59'04"N± 5"
60°57'12"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference: 1. Isenor, G. P., Amax Exploration Inc. and Texasgulf Canada Limited, Iona Rear, Victoria County, Nova Scotia, Texam Joint Venture, Project 585, Drill Logs and Sections, Assays, IP Survey and two Geology Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(02), 1976.

ADDITIONAL INFORMATION:

This hole, which was drilled for base metals, intersected a massive, blue grey brittle petroliferous anhydrite at 90-118 feet (27.4-36 m). A massive grey anhydrite from 119.5-174.5 feet (36.4-53.2 m) was slightly petroliferous.

From 180-336 feet (54.9-102.4 m), the anhydrite was grey massive and petroliferous. "@ 308' Hydrocarbons seeping from core"[1]. The anhydrite from 336-360 feet (102.4-109.7 m) is calcareous, gypsiferous and extremely petrolierous[1].

Well Identifier: M-21

Well Name: ATG-11-76

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: June 12, 1976

Date Rig Released: June 15, 1976

Rig Name/Type: Wireline

Total Depth: 315 feet (96 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 46°59'04"N± 5"
60°56'52"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Isenor, G. P., Amax Exploration Inc. and Texasgulf Canada Limited, Iona Rear, Victoria County, Nova Scotia, Texam Joint Venture, Project 585, Drill Logs and Sections, Assays, IP Survey and two Geology Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(02), 1976.

ADDITIONAL INFORMATION:

This hole, which was drilled for base metals, intersected a massive, blue grey anhydrite from 105-244 feet (32-74.4 m) from which a black liquid bitumen seeped out of cracks and fractures. At 210 feet (64 m) liquid hydrocarbon was concentrated in fractures[1].

Well Identifier:	M-22
Well Name:	ATG-15-76
Company/Contractor:	Amax Exploration Inc./St. Lambert
Date Spudded:	July 1, 1976
Date Rig Released:	July 8, 1976
Rig Name/Type:	Wireline
Total Depth:	477 feet (145.4 m)
Location - Place:	Jubilee, Victoria County (Fig. 8)
- NTS:	11F/15C
- Co-ordinates:	46°59'08"N± 5" 60°57'07"W± 5"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Isenor, G. P., Amax Exploration Inc. and Texasgulf Canada Limited, Iona Rear, Victoria County, Nova Scotia, Texam Joint Venture, Project 585, Drill Logs and Sections, Assays, IP Survey and two Geology Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(02), 1976.

ADDITIONAL INFORMATION:

This hole, which was drilled for base metals, intersected from 81-423.5 feet (24.7-129.1 m) a massive, brittle, blue grey "petroliferous smelling anhydrite"[1]. At 197 feet (60 m), there was one foot of organic rich carbonate, a "strong sour gas smell"[1] and traces of bitumen.

At 250 feet (76.2 m), 266 feet (81.1 m), and from 360-414 feet (109.7-126.2 m), hydrocarbons seeped from the fractures[1].

Well Identifier: M-23

Well Name: ATG-16-76

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: July 9, 1976

Date Rig Released: July 16, 1976

Rig Name/Type: Wireline

Total Depth: 287 feet (87.5 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 46°59'03"N± 5" (45"59'38")
60°57'21"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference: 1. Isenor, G. P., Amax Exploration Inc. and Texasgulf Canada Limited, Iona Rear, Victoria County, Nova Scotia, Texam Joint Venture, Project 585, Drill Logs and Sections, Assays, IP Survey and two Geology Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(02), 1976.

ADDITIONAL INFORMATION:

This hole, which was drilled for base metals, intersected a grey, laminated limestone which was "extremely petroliferous smelling. Tar and bitumen filled cavities and fractures throughout"[1].

Well Identifier: M-24

Well Name: ATG-19-77

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: February 21, 1977

Date Rig Released: February 25, 1977

Rig Name/Type: Wireline

Total Depth: 570 feet (173.7 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'14"N± 5"
60°57'20"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977.
2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, drilled to test for Pb-Zn in carbonate, intersected a grey petroliferous anhydrite from 50 to 411 feet (15.2-125.3 m). From 411-463 feet (125.3-141.1 m), the anhydrite is grey, petroliferous, and has pyrobitumen seeping from fractures. From 432-442 feet (131.7-134.7 m), the anhydrite contains petroliferous limestone (<10%). A massive sulphide with tar filled fractures occurs at 444-448 feet (135.3-136.5 m).

Anhydrite from 448-463 feet (136.5-141.1 m) is petroliferous and a limestone was intersected from 463 to 504 feet (141.1-153.6 m) which contains traces of tar and pyrobitumen[1].

Well Identifier: M-25

Well Name: ATG-20-77

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: February 28, 1977

Date Rig Released: March 1, 1977

Rig Name/Type: Wireline

Total Depth: 270 feet (82.3 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'07"N± 5"
60°56'38"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977.

2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, drilled to test for Pb-Zn in carbonate, intersected a grey, gypsiferous, petroliferous anhydrite from 33 to 39 feet (10.1-11.9 m). A blue grey petroliferous, gypsiferous anhydrite was intersected from 171 to 202 feet (52.1-61.6 m). A dark grey gypsiferous limestone, from 209 to 215 feet (63.7-65.5 m), had bitumen and organic rich black clay and gypsum filled fractures. From 242 to 243 feet (73.8-74 m), a massive broken limestone with bitumen and Pb-Zn was intersected[1].

Well Identifier: M-26

Well Name: ATG-22-77

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: March 4, 1977

Date Rig Released: March 5, 1977

Rig Name/Type: Wireline

Total Depth: 180 feet (54.9 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°58'39"N± 5"
60°57'10"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977.

2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for Pb-Zn in carbonate, intersected a limestone from 137 to 151.6 feet (41.8-46.2 m) which contained tar (pyrobitumen) filled cavities through the section[1].

Well Identifier: M-27

Well Name: ATG-23-77

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: March 6, 1977

Date Rig Released: March 10, 1977

Rig Name/Type: Wireline

Total Depth: 620 feet (189 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'11"N± 5"
60°57'22"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977.
2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for Pb-Zn in carbonate, intersected a pure, massive grey petroliferous anhydrite from 53 to 125 feet (16.2-38.1 m). From 125 to 212 feet (38.1-64.6 m), the anhydrite is grey, massive and petroliferous, but contains minor carbonate throughout. From 212 to 553.5 feet (64.6-186.6 m), the anhydrite is grey to blue grey, and in places tan grey and petroliferous; 252 to 252.5 feet (76.8-77 m) shows a section that is 35% carbonate rock with pyrobitumen; 290.5 to 291.5 feet (88.5-88.8 m) is 25% carbonate with pyrobitumen. Anhydrite with minor tar seeps from fractures was found from 475 to 482 feet (144.8-146.9 m) and from 525 to 540 feet (160-164.6 m)[1].

Well Identifier: M-28

Well Name: ATG-24-77

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: March 15, 1977

Date Rig Released: March 18, 1977

Rig Name/Type: Wireline

Total Depth: 560 feet (170.7 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'09"N± 5"
60°57'20"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977.

2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for Pb-Zn in carbonate, intersected a massive petroliferous anhydrite with approximately 2-3% calcareous material from 90 to 152 feet (27.4-46.3 m). From 247 to 466.5 feet (75.3-142.2 m), the anhydrite is again massive and petroliferous. At 346.5 feet (105.6 m), it contains pyritic-rich carbonate with some bitumen in cavities. From 405 to 450 feet (123.4-137.2 m), tar seeps were noted. A limestone, intersected from 479 to 496 feet (146-151.2 m), is bituminous[1].

Well Identifier: M-29

Well Name: ATG-25-77

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: March 19, 1977

Date Rig Released: March 21, 1977

Rig Name/Type: Wireline

Total Depth: 518 feet (157.9 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'11"N± 5"
60°57'18"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977.
2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for Pb-Zn in carbonate, intersected a blue grey, calcareous (in places) petroliferous anhydrite from 30 to 433 feet (9.1-132 m). From 433 to 436.5 feet (132-133 m), a carbonate rock consisting of 75% limestone and 25% gypsum-anhydrite was found. This rock contained tar coated fractures. A blue grey petroliferous calcareous anhydrite was interested from 436.5 to 463.1 feet (133-141.2 m). A blue grey petroliferous anhydrite containing 5% carbonate was intersected from 466.5 to 480 feet (142.2-146.3 m). From 483.5 to 484 feet (147.4-147.5 m) was a limestone with tar seeps from fractures[1].

Well Identifier: M-30

Well Name: ATG-26-77

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: March 22, 1977

Date Rig Released: March 24, 1977

Rig Name/Type: Wireline

Total Depth: 169 feet (51.5 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'08"N± 5"
60°57'21"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977.
2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for Pb-Zn in carbonate, intersected a limestone from 118 to 137 feet (36-41.8 m) which contained tar coated fractures[1].

Well Identifier:	M-31
Well Name:	ATG-27-77
Company/Contractor:	Amax Exploration Inc./St. Lambert
Date Spudded:	March 25, 1977
Date Rig Released:	March 28, 1977
Rig Name/Type:	Wireline
Total Depth:	420 feet (128 m)
Location - Place:	Jubilee, Victoria County (Fig. 8)
- NTS:	11F/12C
- Co-ordinates:	45°59'07"N± 5" 60°57'25"W± 5"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977. 2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for Pb-Zn in carbonate, intersected from 120 to 238 feet (36.6-72.5 m) a grey, massive petroliferous anhydrite. From 238 to 314 feet (72.5-95.7 m), a grey, massive, slightly gypsiferous, petroliferous anhydrite was found. At 320 feet (97.5 m) a one-foot section of tar coated tan limestone was intersected. At 345 feet (105.2 m) bitumen was found seeping from vugs in rocks that are 90% carbonate. The section of limestone from 351 to 356.6 feet (107-108.7 m) is algal rich with bitumen seeps and calcite filled fractures. A grey, calcareous, slightly gypsiferous petroliferous anhydrite was intersected from 356.6 to 370.5 feet (108.7-112.9 m). A section of limestone from 383.5 to 397.8 feet (116.9-121.2 m) had tar coats on some fractures[1].

Well Identifier:	M-32
Well Name:	ATG-28-77
Company/Contractor:	Amax Exploration Inc./St. Lambert
Date Spudded:	May 20, 1977
Date Rig Released:	May 24, 1977
Rig Name/Type:	Wireline
Total Depth:	600 feet (182.9 m)
Location - Place:	Jubilee, Victoria County (Fig. 8)
- NTS:	11F/15C
- Co-ordinates:	45°59'13"N± 5" 60°57'21"W± 5"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977. 2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for Pb-Zn in basal carbonate, intersected a grey massive petroliferous anhydrite from 20 to 565 feet (6.1-172.2 m). From 245.5 to 247 feet (74.8-75.3 m), a tan grey bedded laminated limestone was found with tar seeping from fractures[1].

This anhydrite "section has 2" thick carbonate tar seeps at 546', 547', and 552'"[1].

Well Identifier:	M-33
Well Name:	ATG-29-77
Company/Contractor:	Amax Exploration Inc./St. Lambert
Date Spudded:	May 25, 1977
Date Rig Released:	May 27, 1977
Rig Name/Type:	Wireline
Total Depth:	655 feet (199.6 m)
Location - Place:	Jubilee, Victoria County (Fig. 8)
- NTS:	11F/15C
- Co-ordinates:	45°59'15"N± 5" 60°57'21"W± 5"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977. 2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, which was drilled for base metals, intersected a blue grey, massive and petroliferous anhydrite from 9 to 599 feet (2.7-182.6 m). A tan grey, well bedded laminated limestone, from 605 to 609.5 feet (184.4-185.8 m), had bitumen seeps at the top of the section. A grey irregularly bedded laminated limestone from 625 to 638.5 feet (190.5-194.6 m) contained tar filled vugs.

Well Identifier: M-34

Well Name: ATG-30-77

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: May 28, 1977

Date Rig Released: June 1, 1977

Rig Name/Type: Wireline

Total Depth: 450 feet (137.2 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'07"N± 5"
60°57'31"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977.
2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for Pb-Zn in basal carbonates, intersected a blue grey massive and petroliferous calcareous anhydrite from 55 to 130 feet (16.8-39.6 m). The section from 130 to 234 feet 939.6-71.3 m) is a blue grey (tan where calcareous) petroliferous anhydrite, which contains approximately 20% carbonate rock. From 234 to 404 feet (71.3-123.1 m) the anhydrite is again blue grey, massive and petroliferous[1].

Well Identifier:	M-35
Well Name:	ATG-31-77
Company/Contractor:	Amax Exploration Inc./St. Lambert
Date Spudded:	June 3, 1977
Date Rig Released:	June 5, 1977
Rig Name/Type:	Wireline
Total Depth:	210 feet (64 m)
Location - Place:	Jubilee, Victoria County (Fig. 8)
- NTS:	11F/15C
- Co-ordinates:	45°58'38"N± 5" 60°57'21"W± 5"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977. 2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for Pb-Zn in basal carbonate, intersected a blue grey, petroliferous, brittle anhydrite from 9 to 52 feet (2.7-15.8 m)[1].

Well Identifier: M-36

Well Name: ATG-32-77

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: June 6, 1977

Date Rig Released: June 6, 1977

Rig Name/Type: Wireline

Total Depth: 170 feet (51.8 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°58'38"N± 5"
60°57'25"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977.

2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for Pb-Zn in basal carbonate, intersected from 9 to 111 feet (2.7-33.8 m) a blue grey massive and brittle, slightly calcareous and petroliferous anhydrite. A petroliferous limestone was found from 112.5 to 115 feet (34.3-35 m)[1].

Well Identifier:	M-37
Well Name:	ATG-34-77
Company/Contractor:	Amax Exploration Inc./St. Lambert
Date Spudded:	June 10, 1977
Date Rig Released:	June 13, 1977
Rig Name/Type:	Wireline
Total Depth:	390 feet (118.9 m)
Location - Place:	Jubilee, Victoria County (Fig. 8)
- NTS:	11F/15C
- Co-ordinates:	45°59'13"N± 5" 60°56'38"W± 5"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977. 2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for Pb-Zn in basal carbonate, intersected from 8 to 304 feet (2.4-92.7 m) a blue-grey brittle and pure massive anhydrite. Within this section, from 143 to 145 feet (43.6-44.2 m) is a grey bedded "tar soaked" limestone. A blue grey petroliferous and carbonate rich anhydrite was intersected from 304 to 340.5 feet (92.7-103.8 m) which was tar soaked with bitumen seeping from fractures. At 358 feet (109.1 m) within a section of grey limestone, "liquid black tar soaks the core"[1].

Well Identifier: M-38

Well Name: ATG-35-77

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: June 14, 1977

Date Rig Released: June 16, 1977

Rig Name/Type: Wireline

Total Depth: 550 feet (168 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'13"N± 5"
60°57'18"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977.

2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for Pb-Zn in basal Windsor limestone, intersected from 10 to 472 feet (3-143.9 m) a blue grey, massive and brittle petroliferous anhydrite with minor bitumen seeps throughout. From 435 to 439 feet (132.6-133.8 m), the anhydrite had tar coated fractures. A blue grey, petroliferous anhydrite with approximately 25-30% tan carbonate was intersected from 472 to 474 feet (143.9-144.5 m). From 474 to 475.5 feet (144.5-144.9 m) was a tan, anhydrite rich, interclastic oil soaked limestone. From 475.5 to 501 feet (144.9-152.9 m) a blue grey, petroliferous anhydrite was found which contained approximately 20% carbonate, and had tar coated fractures. An oil soaked grey laminated limestone was intersected from 501 to 506 feet (152.7-154.2 m). "This could be a nonmineralized cap rock"[1]. The section from 506 to 518.5 feet (154.2-158 m) contains blue grey petroliferous and carbonate rich anhydrite with minor tar coatings. The grey limestone, from 520 to 523.5 feet (158.5-159.6 m) contains tar filled vugs[1].

Well Identifier: M-39

Well Name: ATG-37-77

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: June 24, 1977

Date Rig Released: June 28, 1977

Rig Name/Type: Wireline

Total Depth: 380 feet (115.8 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'14"N± 5"
60°57'30"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Drill Logs and Analyses, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(01), 1977.

2. Amax Minerals Exploration Inc., Iona Rear, Victoria County, Nova Scotia, Geology and Drillhole Location Maps, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-38(03), 1977.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for Pb-Zn mineralization in basal Windsor limestone, intersected a blue grey, brittle, petroliferous anhydrite from 33 to 327 feet (10.1-99.7 m). The section from 307 to 309.5 feet (93.6-94.3 m) is an oil stained sphalerite rich limestone breccia[1].

Well Identifier: M-40

Well Name: ATG-49-78

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: February 7, 1978

Date Rig Released: February 20, 1978

Rig Name/Type: Wireline

Total Depth: 993.8 feet (302.9 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'31"N± 5"
60°57'48"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference: 1. Clemiss, K. R., Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Geology with Geochemical Locations and Drill Logs, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(03), 1978.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for the northwest extension of the Jubilee breccia zone, intersected a blue grey, massive and petroliferous sub-zone A anhydrite from 471 to 942 feet (143.6-287.1 m). From 774 to 780 feet (235.9-237.7 m) a grey laminated and brecciated limestone was intersected. The vugs and bedding planes were found to seep hydrocarbons. A grey, massive, laminated basal Windsor limestone from 956 to 962.5 feet (291.4-293.4 m) contained vertical hair-like fractures seeping hydrocarbons[1].

Well Identifier:	M-41
Well Name:	ATG-50-78
Company/Contractor:	Amax Exploration Inc./St. Lambert
Date Spudded:	February 21, 1978
Date Rig Released:	March 3, 1978
Rig Name/Type:	Wireline
Total Depth:	967.6 feet (294.9 m)
Location - Place:	Jubilee, Victoria County (Fig. 8)
- NTS:	11F/15C
- Co-ordinates:	45°59'26"N± 5" 60°57'36"W± 5"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Clemiss, K. R., Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Geology with Geochemical Locations and Drill Logs, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(03), 1978.

ADDITIONAL INFORMATION:

This hole, which was drilled for base metals, intersected from 688.8 to 942 feet (209.9-287.1 m), a "blue grey massive and dense petroliferous basal Windsor (A_1) anhydrite"[1].

Well Identifier:	M-42
Well Name:	ATG-51-78
Company/Contractor:	Amax Exploration Inc./St. Lambert
Date Spudded:	March 3, 1978
Date Rig Released:	March 14, 1978
Rig Name/Type:	Wireline
Total Depth:	957.8 feet (291.9 m)
Location - Place:	Jubilee, Victoria County (Fig. 8)
- NTS:	11F/15C
- Co-ordinates:	45°59'30"N± 5" 60°57'50"W± 5"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Clemiss, K. R., Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Geology with Geochemical Locations and Drill Logs, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(03), 1978.

ADDITIONAL INFORMATION:

This hole, which was drilled for base metals, intersected a blue grey, massive and dense petroliferous anhydrite from 584 to 742 feet (178-226.2 m). A grey brecciated nonlaminated limestone, intersected from 855 to 861.9 feet (260.6-262.7 m), showed minor galena and seeping hydrocarbons[1].

Well Identifier: M-43

Well Name: ATG-52-78

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: March 15, 1978

Date Rig Released: March 20, 1978

Rig Name/Type: Wireline

Total Depth: 777.4 feet (237 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'32"N± 5"
60°57'54"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Clemiss, K. R., Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Geology with Geochemical Locations and Drill Logs, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(03), 1978.

ADDITIONAL INFORMATION:

This hole, which was drilled for base metals, intersected a blue grey, massive petroliferous anhydrite from 305 to 716.3 feet (93-218.3 m). A tan limestone soaked with oil was found from 593.5 to 595.5 feet (180.9-181.5 m). Minor crosscutting gypsum veins are found throughout this section (from 305 to 716.3 feet (93-218.3 m))[1].

Well Identifier: M-44

Well Name: ATG-53-78

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: March 21, 1978

Date Rig Released: April 6, 1978

Rig Name/Type: Wireline

Total Depth: 800.3 feet (243.9 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'28"N± 5"
60°57'53"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Clemiss, K. R., Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Geology with Geochemical Locations and Drill Logs, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(03), 1978.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for Pb-Zn in basal Windsor carbonate, intersected a blue grey, brittle and petroliferous impure anhydrite from 443 to 600 feet (135-182.8 m). Thin bitumen smudges and seeps were associated with the 5-8% interbedded carbonate which is distributed throughout the section as thin irregular layers and thicker carbonate beds. At 539.5 feet (167.4 m), a one-inch section of tar coated black silty carbonate was found. A blue grey, brittle and massive petroliferous anhydrite was intersected from 600 to 762 feet (182.9-232.3 m)[1].

"Interesting to note the absence of tar and pyrobitumen in this section and its direct correlations with the absence of carbonate"[1] and "that the tar (hydrocarbons) are (were?) primary within the carbonate and not into the section via fractures etc."[1].

From 739 to 743.5 feet (225.2-226.6 m), a black organic rich carbonate mud was intersected. Bitumen seeps were present at the base of this section[1].

Well Identifier:	M-45
Well Name:	ATG-54-78
Company/Contractor:	Amax Exploration Inc./St. Lambert
Date Spudded:	April 7, 1978
Date Rig Released:	April 13, 1978
Rig Name/Type:	Wireline
Total Depth:	928.7 feet (283.1 m)
Location - Place:	Jubilee, Victoria County (Fig. 8)
- NTS:	11F/15C
- Co-ordinates:	45°59'35"N± 5" 60°57'59"W± 5"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Clemiss, K. R., Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Geology with Geochemical Locations and Drill Logs, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(03), 1978.

ADDITIONAL INFORMATION:

This hole, which was drilled for base metals, intersected a blue grey, petroliferous and brittle, basal Windsor subzone A anhydrite from 482 to 731 feet (146.9-222.8 m). A half inch thick limestone bed with a large cavity 1/8-1/2 inch filled with tar was found at 657.5 feet (200.4 m). A blue grey, brittle and petroliferous anhydrite was intersected from 731 to 892 feet (222.8-271.9 m)[1].

Well Identifier: M-46

Well Name: ATG-55-78

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: April 13, 1978

Date Rig Released: April 20, 1978

Rig Name/Type: Wireline

Total Depth: 954.5 feet (290.9 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'33"N± 5"
60°58'01"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Clemiss, K. R., Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Geology with Geochemical Locations and Drill Logs, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(03), 1978.

ADDITIONAL INFORMATION:

This hole, which was drilled to test the basal Windsor Group intersected a grey petroliferous anhydrite with minor carbonate (approximately 2-3%) from 521.5 to 670 feet (159-204.2 m). From 755.5 to 876 feet (230.3-267 m), the blue grey, brittle and petroliferous anhydrite contains less than 1% carbonate[1].

Well Identifier: M-47

Well Name: ATG-56-78

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: April 21, 1978

Date Rig Released: April 25, 1978

Rig Name/Type: Wireline

Total Depth: 364 feet (110.9 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'18"N± 5"
60°57'00"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Clemiss, K. R., Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Geology with Geochemical Locations and Drill Logs, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(03), 1978.

ADDITIONAL INFORMATION:

This hole, which was drilled to test the basal Windsor Group, intersected a blue grey, massive petroliferous anhydrite containing carbonate rich sections from 26 to 325 feet (7.9-99.1 m). A grey, massive laminated limestone was intersected from 337 to 347.5 m (102.7-105.9 m) which had some tar seeps and open vugs[1].

Well Identifier: M-48

Well Name: ATG-57-78

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: April 26, 1978

Date Rig Released: May 2, 1978

Rig Name/Type: Wireline

Total Depth: 964.3 feet (293.9 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'32"N± 5"
60°58'01"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Clemiss, K. R., Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Geology with Geochemical Locations and Drill Logs, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(03), 1978.

ADDITIONAL INFORMATION:

This hole, which was drilled to test the basal Windsor Group, intersected a blue grey, petroliferous anhydrite that contained traces of pyrobitumen and tar from 443 to 701 feet (135-213.7 m). A blue grey, massive petroliferous and slightly gypsiferous anhydrite was intersected from 770 to 901 feet (234.7-274.6 m)[1].

Well Identifier: M-49

Well Name: ATG-58-78

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: May 3, 1978

Date Rig Released: May 5, 1978

Rig Name/Type: Wireline

Total Depth: 324.7 feet (99 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°59'14"N± 5"
60°57'03"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Clemiss, K. R., Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Geology with Geochemical Locations and Drill Logs, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(03), 1978.

ADDITIONAL INFORMATION:

This hole, which was drilled to test the basal Windsor Group, intersected a grey to light grey petroliferous anhydrite from 94 to 240 feet (28.7-73.2 m). A limestone breccia, from 287.5 to 299 feet (87.6-91.1 m), contained tar coated fractures[1].

Well Identifier: M-50

Well Name: ATG-59-78

Company/Contractor: Amax Exploration Inc./St. Lambert

Date Spudded: May 5, 1978

Date Rig Released: May 8, 1978

Rig Name/Type: Wireline

Total Depth: 403.4 feet (123 m)

Location - Place: Jubilee, Victoria County (Fig. 8)

- NTS: 11F/15C

- Co-ordinates: 45°58'20"N± 5"
60°56'15"W± 5"

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Clemiss, K. R., Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Geology with Geochemical Locations and Drill Logs, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(03), 1978.

ADDITIONAL INFORMATION:

This hole, which was drilled to test for the southeastern extension of the Jubilee Fault, intersected a light grey, brittle, petroliferous anhydrite from 120 to 364 feet (36.6-110.9 m)[1].

Well Identifier:	M-51
Well Name:	ATG-60-78
Company/Contractor:	Amax Exploration Inc./St. Lambert
Date Spudded:	May 9, 1978
Date Rig Released:	May 11, 1978
Rig Name/Type:	Wireline
Total Depth:	446.1 feet (136 m)
Location - Place:	Jubilee, Victoria County (Fig. 8)
- NTS:	11F/15C
- Co-ordinates:	45°58'24"N± 5" 60°56'15"W± 5"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Clemiss, K. R., Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Geology with Geochemical Locations and Drill Logs, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(03), 1978.

ADDITIONAL INFORMATION:

This hole was drilled to test the basal Windsor Group for the southeastern extension of the Jubilee Fault. A blue grey, petroliferous, slightly calcareous anhydrite was intersected from 118 to 393.9 feet (36-120 m). From 197 to 199 feet (60-60.7 m), a laminated tar soaked limestone was found[1].

Well Identifier:	M-52
Well Name:	ATG-62-78
Company/Contractor:	Amax Exploration Inc./St. Lambert
Date Spudded:	May 17, 1978
Date Rig Released:	May 27, 1978
Rig Name/Type:	Wireline
Total Depth:	1,174.2 feet (357.9 m)
Location - Place:	Jubilee, Victoria County (Fig. 8)
- NTS:	11F/15C
- Co-ordinates:	45°58'16"N± 5" 60°56'15"W± 5"
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Clemiss, K. R., Amax Exploration Inc., Jubilee, Victoria County, Nova Scotia, Geology with Geochemical Locations and Drill Logs, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15C 07-Q-09(03), 1978.

ADDITIONAL INFORMATION:

This hole, which was drilled to test the basal Windsor Group, intersected, from 361 to 880 feet (110-268.2 m), a blue grey petroliferous anhydrite with minor carbonate and some tar coated fractures. From 880 to 937 feet (268.2-296.6 m), a grey petroliferous anhydrite with approximately 5% carbonate was found. A grey, poorly developed, oil soaked, laminated limestone breccia with abundant tar was intersected from 1,139 to 1,146.5 feet (347.2-349.5 m)[1].

Well Identifier: M-53

Well Name: Bras d'Or 3-78

Company/Contractor: Chevron Standard Ltd.

Date Spudded: July 8, 1978

Date Rig Released: Unknown

Rig Name/Type: Wireline

Total Depth: 627 feet (191.1 m)

Location - Place: Malagawatch, Inverness County (Fig. 8)

- NTS: 11F/14D

- Co-ordinates: 45°52'30"N
61°00'20"W

Lithologic Log: On file, by L. Dekker.

Mechanical Logs: Not on file.

Reference:

1. Chevron Standard Ltd./Irving Oil Ltd., Inverness County, Cape Breton, Nova Scotia, Well History Malagawatch No. 1, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 39-J-36(01), 1979.
2. McMahon, P., Notes on Chevron-Irving Petroleum Drilling in the Malagawatch Area, Petroleum Resources Section Files, Nova Scotia Department of Mines and Energy, Halifax, Nova Scotia, 1985.
3. Thompson, I., Chevron Standard Ltd., Barringer Magenta Ltd., Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 07-J-71(02), 1978.

ADDITIONAL INFORMATION:

Chevron Standard Ltd., as part of a base metal exploration program, drilled six BQ core hles in 1978 in the Malagawatch area. One of these, Chevron Bras d'Or No. 3-78, showed oil scum on the returns. On the lithologic log provided by Chevron, it was reported that "everytime core barrel was pulled, medium gravity crude oil oozed out of the well. Flow would be approximately two gallons/hour"[3].

M-53 ADDITIONAL INFORMATION: (cont'd)

"To test this occurrence, a second hole, Chevron Bras d'Or No. 3A-78, was spudded ... six feet (1.8 m) away from No. 3-78 ... This hole had a major oil show in addition to several minor ones. Through water injection in hole No. 3A-78 oil flow to surface was obtained (through hole 3-78) at a sustained rate of approximately two gallons per minute for five minutes through a 2-inch (50 mm) valve. The producing zone was a slightly porous (<5%), vuggy, microcystalline limestone estimated to be two inches (5 cm) thick at a depth of 291.3 feet (88.8 m). The oil was a light 40.4° API crude of high quality which contained only 0.24% sulphur. This discovery stimulated a major lease acquisition within Nova Scotia by Chevron Standard of Calgary"[2].

Well Identifier:	M-54
Well Name:	Chevron Bras d'Or 7-78
Company/Contractor:	Chevron Standard Ltd.
Date Spudded:	1978
Date Rig Released:	1978
Rig Name/Type:	Wireline
Total Depth:	747 feet (227.7 m)
Location - Place:	Bras d'Or, Inverness County (Fig. 8)
- NTS:	11F/15B
- Co-ordinates:	45°52'10"N 61°59'40"W
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Thompson, I., Chevron Standard Ltd., Bras d'Or, Inverness County, Nova Scotia, Geology Map, Drill Logs and Geochemical Report, Barringer Magenta Ltd., Soil Geochemistry and 3 Maps and Drillhole Sections, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 07-J-71(02), 1978.

ADDITIONAL INFORMATION:

Petroliferous limestone was found at varying depths below 387 feet (118 m). A light grey petroliferous anhydrite with silty calcareous bands was intersected from 98.7 to 137 feet (30-41.8 m). A petroliferous anhydrite with 30% carbonate was found from 492.7 to 502.7 feet (150.2-153.2 m)[1].

Well Identifier: M-55

Well Name: Chevron Bras d'Or 9-78

Company/Contractor: Chevron Standard Ltd.

Date Spudded: 1978

Date Rig Released: 1978

Rig Name/Type: Wireline

Total Depth: 611 feet (186.2 m)

Location - Place: Bras d'Or, Inverness County (Fig. 8)

- NTS: 11F/15B

- Co-ordinates: 45°51'50"N
60°59'30"W

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Thompson, I., Chevron Standard Ltd., Bras d'Or, Inverness County, Nova Scotia, Geology Map, Drill Logs and Geochemical Report, Barringer Magenta Ltd., Soil Geochemistry and 3 Maps and Drillhole Sections, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 07-J-71(02), 1978.

ADDITIONAL INFORMATION:

Petroliferous limestone and anhydrite were found as alternating layers from 248.3 to 543 feet (75.7-165.5 m). The anhydrite sections are generally thicker than the limestone, and range from 10-20% calcareous[1].

Well Identifier:	M-56
Well Name:	Malagawatch No. 2
Company/Contractor:	Chevron Standard Ltd./Irving Oil Ltd.
Date Spudded:	December 10, 1979
Date Rig Released:	January 11, 1980
Rig Name/Type:	Guthrie McLaren Rig No. 8
Total Depth:	2,005 feet (611 m)
Location - Place:	Malagawatch, Inverness County (Fig. 8)
- NTS:	11F/15B
- Co-ordinates:	45°52'06"N 60°55'18"W
Lithologic Log:	On file.
Mechanical Logs:	Not on file.
Reference:	1. Dekker, L., Chevron Standard Ltd., The Malagawatch Potash Exploration Program, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 40-J-36(02), 1982.

ADDITIONAL INFORMATION:

The hole, which was drilled for potash, was located 59.1 feet (18 m) west of Malagawatch No. 1, which was drilled for oil. A "live oil show, light brown oil oozing out as small droplets" was encountered from 1,231.3 to 1,231.6 feet (375.3-375.4 m)[1].

Well Identifier: M-57

Well Name: Malagawatch No. 5

Company/Contractor: Chevron Standard Ltd./Longyear Canada Inc.

Date Spudded: June 4, 1980

Date Rig Released: June 28, 1980

Rig Name/Type: Longyear Model 44-453 GMC Motor (Truck Mount)

Total Depth: 1,192 feet (363.3 m)

Location - Place: Malagawatch, Inverness County (Fig. 8)

- NTS: 11F/15B

- Co-ordinates: 45°51'37"N
60°56'10"W

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference: 1. Dekker, L., Chevron Standard Ltd., The Malagawatch Potash Exploration Program, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 40-J-36(02), 1982.

ADDITIONAL INFORMATION:

The hole, drilled for potash within the Upper Windsor Group, encountered petroliferous limestone at various sections between 424.4 and 1,192 feet (129.4-359.1 m)[1].

Well Identifier: M-58

Well Name: Malagawatch No. 5A

Company/Contractor: Chevron Standard Ltd./Longyear Canada Inc.

Date Spudded: June 29, 1980

Date Rig Released: September 3, 1980

Rig Name/Type: Longyear Model 44-453 GMC Motor (Truck Mount)

Total Depth: 3,908 feet (1191.2 m)

Location - Place: Malagawatch, Inverness County (Fig. 8)

- NTS: 11F/15B

- Co-ordinates: 45°51'37"N
60°56'10"W

Lithologic Log: On file.

Mechanical Logs: Run but not on file.

Reference:

1. Dekker, L., Chevron Standard Ltd, The Malagawatch Potash Exploration Program, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 40-J-36(02), 1982.

ADDITIONAL INFORMATION:

The hole, drilled for potash within the Lower Windsor Group, encountered petroliferous limestone at various sections between 1,259.7 and 3,456.3 feet (384-1053.5 m)[1].

Well Identifier:	M-59
Well Name:	Malagawatch M-4
Company/Contractor:	Chevron Standard Ltd./Longyear Canada Inc.
Date Spudded:	August 14, 1980
Date Rig Released:	October 19, 1980
Rig Name/Type:	Longyear Model 44-453 GMC Motor (Skid Mounted)
Total Depth:	4,006 feet (1221 m)
Location - Place:	Malagawatch, Inverness County (Fig. 8)
- NTS:	11F/15B
- Co-ordinates:	45°52'19"N 60°55'02"W
Lithologic Log:	On file.
Mechanical Logs:	Run but not on file.
Reference:	1. Dekker, L., Chevron Standard Ltd., The Malagawatch Potash Exploration Program, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 40-J-36(02), 1982.

ADDITIONAL INFORMATION:

The hole, drilled for potash within the Lower Windsor Group, encountered petroliferous: mudstone, dolomite, siltstone, anhydrite, limestone and halite at various sections between 87 and 3,241.5 feet (26.5-988 m)[1].

Well Identifier: M-60

Well Name: Malagawatch No. 3

Company/Contractor: Chevron Standard Ltd./Longyear Canada Inc.

Date Spudded: September 7, 1980

Date Rig Released: October 25, 1980

Rig Name/Type: Longyear Model 44-453 GMC Motor (Truck Mount)

Total Depth: 3,838 feet (1170 m)

Location - Place: Malagawatch, Inverness County (Fig. 8)

- NTS: 11F/15B

- Co-ordinates: 45°52'04"N
60°54'57"W

Lithologic Log: On file.

Mechanical Logs: Run but not on file.

Reference: 1. Dekker, L., Chevron Standard Ltd., The Malagawatch Potash Exploration Program, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 40-J-36(02), 1982.

ADDITIONAL INFORMATION:

The hole, drilled for potash within the Lower Windsor Group, encountered black bands of highly petroliferous limestone from 969.8 to 978 feet (295.6-298.1 m), petroliferous biomicrite from 1,416.5 to 1,418 feet (431.8-432.2 m), and petroliferous limestone at various sections from 1,623 to 3,197.3 feet (494.7-974.5 m). From 3,621 to 3,627.3 feet (1103.7-1105.6 m), the upper 50 inches (20 cm) of laminated black petroliferous limestone was observed to have "bled" oil[1].

Well Identifier:	M-61
Well Name:	Malagawatch No. 8
Company/Contractor:	Chevron Standard Ltd./Longyear Canada Inc.
Date Spudded:	October 23, 1980
Date Rig Released:	December 11, 1980
Rig Name/Type:	Longyear Model 44-453 GMC Motor (Skid Mounted)
Total Depth:	3,947 feet (1203.1 m)
Location - Place:	Malagawatch, Inverness County (Fig. 8)
- NTS:	11F/15B
- Co-ordinates:	45°51'58.82"N 60°55'53.21"W
Lithologic Log:	On file.
Mechanical Logs:	Run but not on file.
Reference:	1. Dekker, L., Chevron Standard Ltd., The Malagawatch Potash Exploration Program, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 40-J-36(02), 1982.

ADDITIONAL INFORMATION:

The hole, drilled for potash within the Lower Windsor Group, encountered petroliferous limestone from 301.8 to 306.4 feet (92-93.4 m) and 352 to 357 feet (107.3-108.8 m), petroliferous halite from 837 to 842.9 feet (255.1-256.9 m), and 864.5 to 868.6 feet (263.5-264.8 m)[1].

Well Identifier: M-62

Well Name: Malagawatch No. 10

Company/Contractor: Chevron Standard Ltd./Longyear Canada Inc.

Date Spudded: October 31, 1980

Date Rig Released: December 4, 1980

Rig Name/Type: Longyear Model 44-453 GMC Motor (Truck Mount)

Total Depth: 3,218 feet (980.9 m)

Location - Place: Malagawatch, Inverness County (Fig. 8)

- NTS: 11F/15B

- Co-ordinates: 45°52'16.27"N
60°58'17.32"W

Lithologic Log: On file.

Mechanical Logs: Not on file.

Reference:

1. Dekker, L., Chevron Standard Ltd., The Malagawatch Potash Exploration Program, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 40-J-36(02), 1982.

ADDITIONAL INFORMATION:

The hole, drilled for potash within the Lower Windsor Group, encountered petroliferous: limestone, siltstone, dolomite breccia and anhydrite at various sections between 1,642.4 and 2,718 feet (500.6-828.5 m)[1].

Well Identifier: M-63

Well Name: Malagawatch No. 6

Company/Contractor: Chevron Standard Ltd./Longyear Canada Inc.

Date Spudded: December 9, 1980

Date Rig Released: February 13, 1981

Rig Name/Type: Longyear Model 44-453 GMC Motor (Truck Mount)

Total Depth: 3,508 feet (1069.2 m)

Location - Place: Malagawatch, Inverness County (Fig. 8)

- NTS: 11F/15B

- Co-ordinates: 45°52'00.59"N
60°56'58.48"W

Lithologic Log: On file.

Mechanical Logs: Run but not on file.

Reference: 1. Dekker, L., Chevron Standard Ltd., The Malagawatch Potash Exploration Program, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 40-J-36(02), 1982.

ADDITIONAL INFORMATION:

The hole, drilled for potash within the Lower Windsor Group, encountered petroliferous limestone from 2,616.8 to 2,625.1 feet (797.6-800.1 m)[1].

Well Identifier: M-64

Well Name: Malagawatch No. 7

Company/Contractor: Chevron Standard Ltd./Longyear Canada Inc.

Date Spudded: January 7, 1981

Date Rig Released: February 17, 1981

Rig Name/Type: Longyear Model 44-453 GMC Motor (Skid Mounted)

Total Depth: 2,877 feet (876.9 m)

Location - Place: Malagawatch, Inverness County (Fig. 8)

- NTS: 11F/15B

- Co-ordinates: 45°52'03.84"N
60°56'24.73"W

Lithologic Log: On file.

Mechanical Logs: Run but not on file.

Reference:

1. Dekker, L., Chevron Standard Ltd., The Malagawatch Potash Exploration Program, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 40-J-36(02), 1982.

ADDITIONAL INFORMATION:

The hole, drilled for potash within the Lower Windsor Group, encountered petroliferous limestone from 1,217.2 to 1,227 feet (371-374 m) and 2,335.1 to 2,351.4 feet (711.8-716.7 m)[1].

Well Identifier: M-65

Well Name: Malagawatch No. 9

Company/Contractor: Chevron Standard Ltd./Longyear Canada Inc.

Date Spudded: February 26, 1981

Date Rig Released: April 14, 1981

Rig Name/Type: Longyear Model 44-453 GMC Motor (Truck Mount)

Total Depth: 3,648 feet (1111.9 m)

Location - Place: Malagawatch, Inverness County (Fig. 8)

- NTS: 11F/15B

- Co-ordinates: 45°52'03"N
60°56'53"W

Lithologic Log: On file.

Mechanical Logs: Run but not on file.

Reference: 1. Dekker, L., Chevron Standard Ltd., The Malagawatch Potash Exploration Program, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 40-J-36(02), 1982.

ADDITIONAL INFORMATION:

The hole, drilled for potash within the Lower Windsor Group, encountered petroliferous: limestone, calcareous mudstone, halite, siltstone and dolomite in various sections between 188.5 and 1,955.3 feet (57.5-596 m)[1].

Well Identifier: M-66

Well Name: McIvor Point R-1/R-1W

Company/Contractor: Chevron Standard Ltd./Longyear Canada Inc.

Date Spudded: May 6, 1981

Date Rig Released: July 18, 1981

Rig Name/Type: Longyear Model 44-453 GMC Motor (Truck Mount)

Total Depth: R-1 : 2,953 feet (900.07 m)
R-1W: 3,890 feet (1185.67 m)

Location - Place: Malagawatch, Inverness County (Fig. 8)

- NTS: 11K/02B

- Co-ordinates: 46°02'05.26"N
60°55'13.04"W

Lithologic Log: On file, by K. Niggemann and L. Dekker

Mechanical Logs: Run but not on file.

Reference: 1. Dekker, L., Chevron Standard Ltd., The Malagawatch Potash Exploration Program, Nova Scotia Department of Mines and Energy, Assessment Report 11F/15B 40-J-36(02), 1982.

ADDITIONAL INFORMATION:

The hole, drilled for potash within the Lower Windsor Group, encountered petroliferous: siltstone, dolomite, halite, and limestone in various sections between 1,248 and 3,299.9 feet (380-1002.5 m)[1].

Well Identifier: M-67

Well Name: NSDM Record No. 7644, P-54

Company/Contractor: Nova Scotia Department of Mines and Energy

Date Spudded: January 12, 1983

Date Rig Released: April 18, 1983

Rig Name/Type: Wireline

Total Depth: 3,337 feet (1017 m)

Location - Place: New Glasgow, Pictou County (Fig. 7)

- NTS: 11E/10A

- Co-ordinates: 45°34'47"N
62°39'48"W

Lithologic Log: On file.

Mechanical Logs: On file.

Reference: 1. Nova Scotia Department of Mines and Energy, Petroleum Resources Section Files, Halifax, Nova Scotia, 1985.

ADDITIONAL INFORMATION:

A coal hole, drilled to investigate structure, encountered a sandstone member which contained oil. The drill core showed significant live oil staining from 1,860 to 2,254 feet (567-687 m). The very light brown discoloration occurred in distinct bands on a medium to dark grey, very fine grained sandstone which has minor to common calcite cement and commonly a silty matrix. These bands had distinct diesel fuel odour and gave a pale yellow, fluorescence and a weak to moderate slow pale yellow cut fluorescence. The best zone, from 2,083.3 to 2,099.7 feet (635-640 m) showed the more significant "seeps". These were localized in planar accumulations of carbonaceous rich material. Core analyses indicated a poor to fair porosity and a very poor permeability.

Well Identifier: M-68

Well Name: MacDonald Heritage Property Water Well

Company/Contractor: Ken Woods, Driller

Date Spudded: October 1, 1985

Date Rig Released: October 3, 1985

Rig Name/Type: Ingersoll Rand T-3, Water Well Rotary Rig

Total Depth: 83 feet (25.3 m)

Location - Place: Eastern side of Lake Ainslie, Inverness County (Fig. 8)

- NTS: 11K/03D

- Co-ordinates: 46°08'10"N
61°08'20"W

Lithologic Log: Summary on file.

Mechanical Logs: None conducted.

Reference: 1. McMahon, P., Notes on Oil Occurrence, Water Well Drilling, Lake Ainslie, East Side, Petroleum Resources Section Files, Nova Scotia Department of Mines and Energy, Halifax, Nova Scotia, October 1985.

ADDITIONAL INFORMATION:

"A water well, being drilled in the Lake Ainslie (east side) area, encountered oil at approximately 80 feet (24.4 m) ... Drilling continued to a depth of 83 feet (25.3 m). The driller estimates that approximately 10 gallons of oil was initially pumped out prior to water and oil being recovered and that at the total depth reached, an estimated 35 gallons/minute of water with oil was produced.

"It should be noted that the aquifers above the oil zone were open and still producing, and that only 3 feet (.9 m) of the zone was intersected; therefore, a zone thickness or an oil/water ratio estimate could not be obtained. The zone was pumped for only a short time and then allowed to sit overnight and 'blown' again the next day. Oil was again brought to surface with the water but at lesser amounts ... The well was then cemented back to 73 feet (22.3 m) to allow for a useable water supply ...

"The cuttings from the well appear to be from the Horton Group, being almost entirely grey sediments and, for the most part, dark brownish grey fine grained sandstones and siltstones ... The sandstones are petroliferous, bleeding oil when heated"[1].

The well was drilled close to the Windsor/Horton contact near the crest of an anticlinal flexure.

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APPENDIX 1

GLOSSARY OF SELECTED PETROLEUM TERMS

APPENDIX 1

GLOSSARY OF SELECTED PETROLEUM TERMS

(from: Rice, 1963; Leecraft, 1933; Whitehead, 1983)

Albertite	a black variety of bitumen with a brilliant lustre and conchoidal fracture. It is practically insoluble in alcohol and only partially so in turpentine.
Asphalt	a black, glossy, and sometimes brittle variety of bitumen. Some asphalts are just pourable under normal conditions, whereas others are virtually solid. Usually dark brown or black in colour, melts at 90° to 100°F, and is to a large extent soluble in oil of turpentine, ether or alcohol. Occurs as seeps, springs, lakes and impregnations in rocks. The most noted occurrences are the Trinidad Pitch Lake and the Athabasca Tar Sands.
Bitumen	generic name of a variety of hydrocarbons, all of which are dark, heavy (SG 100 to 110), viscous to solid, and go by the names of asphalt, asphaltic, tar and pitch. Bitumen, an ancient name describing early discoveries of oil seepages, has come to mean a pigment derived from asphalt. However, nomenclature is difficult to apply since bitumen, tar, pitch and asphalt have different meanings all over the world. One tonne of bitumen yields between 5.8 and 6.4 barrels of oil.
Bituminous	1. containing much organic, or at least carbonaceous matter, mostly in the form of the tarry hydrocarbons which are usually described as bitumen. 2. having the odour of bitumen. Often applied to minerals.
Churn Drill	refers to cable tool drill; a method of drilling a hole whereby a heavy bit suspended on a wire or cable is driven into the ground under its own weight. This form of drilling has been replaced almost entirely by rotary drilling, especially offshore, though it is sometimes used onshore.
Dead Oil	oil containing no dissolved gas, and therefore devoid of any built-in drive mechanism, as opposed to wild or live oil. Distilled from tar, it is heavier than water.

Hydrocarbons	compounds of the elements hydrogen and carbon, in either solid, liquid or gaseous form. Natural gas and petroleum are mixtures of hydrocarbons.
Hydrocarbon Minerals	a term usually taken to mean the naturally occurring solid varieties of carbon-hydrogen (sometimes also oxygen) compounds, i.e. the natural 'organic' minerals.
Live Oil	oil containing dissolved gas. Also known as unstabilized oil. It is lighter than water.
Methane	a light, gaseous, inflammable paraffin hydrocarbon, CH_4, that has a boiling point of -258°F and is the chief component of natural gas and an important basic hydrocarbon for petrochemical manufacture.
Natural Gas	a mixture of hydrocarbons which occur naturally in gaseous form at normal temperatures and pressures but which may be found as liquids under suitable temperature and pressure conditions. Natural gas is mainly paraffinic consisting mostly of methane with significant proportions of ethane, propane, and butane, and also some pentane and higher boiling point compounds. Besides hydrocarbon gases, natural gas may contain appreciable quantities of nitrogen, helium, carbon dioxide, hydrogen sulphide and water vapour.
Oil	the common term for liquid petroleum as found in nature. It is lighter than water, insoluble in water, and inflammable. A mixture of natural hydrocarbons.
Oil Shale	highly organic shale which is capable of yielding, upon proper retorting, liquid hydrocarbons of the general nature of petroleum.
Petroleum	a substance occurring naturally in the earth and composed mainly of mixtures of chemical compounds of carbon and hydrogen, with or without other nonmetallic elements such as sulphur, oxygen, and nitrogen. The compounds that compose it may be in the gaseous, liquid or solid state.
Petroliferous	containing or yielding petroleum.
Pyrobitumen	a dark-coloured, solid, infusible, natural-hydrocarbon complex, often associated with a mineral matrix, insoluble in water, and relatively insoluble in carbon disulphide, benzol, etc.

Spud	the term means to dig with a spade and was soon adapted to cable tool drilling, when the driller used a special kind of bit to begin a new hole. Nowadays to spud simply means to start a new hole.
Tar	a dark, viscous, asphaltic residue resulting from partial evaporation or distillation of petroleum or other hydrocarbons of asphaltic base.